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I. MEMOIR OF EDMUND DWIGHT:

BY FRANCIS BOWEN,

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The services of the late Edmund Dwight to the cause of common school education were numerous and important enough to earn for him the title of a great public benefactor. During his lifetime, they were but little known beyond the small circle of his intimate friends, and of those who were closely associated with him in his labors. It was his pleasure that it should be so. His taste was nice even to fastidiousness; and any public mention of what he had done, seemed to grate upon his feelings and to lessen in his opinion the efficiency of his work. The agency which is bruited abroad, appeared to him, partly by bringing the motives of the agent into suspicion, and partly by mingling personal considerations with the cause, to lose in force what it gained in notoriety. In reference to the workings of society and government, he was deeply convinced of the truth, that far the most important and beneficial results are produced by that part of the social machinery which is most quiet in its operations, and consequently attracts the least notice and remark. He made it a condition of his numerous benefactions to the cause of common schools, that his name should not be mentioned in connection with them; and whatever of personal effort, of time and attention, he contributed to the same end, was in like manner studiously kept back from public observation and acknowledgment. During his lifetime, his friends respected his wishes in this particular; but death has removed the seal of secrecy, and the story of what he accomplished ought now to be told, in order to discharge a debt of gratitude from the public, and to set forth a useful example to others.

Other considerations impart interest to a notice of Mr. Dwight's life and character. He was an eminent member of a remarkable class of men,—the merchant princes of Boston during the last half century,—a class remarkable alike from the nature of the enterprises by which they acquired their wealth, from the high qualities of intellect and character which were manifested in their undertakings, and from the munificence of their public and private charities. He was the compeer and associate of the Eliots, the Appletons, the Lawrences, the Perkinses, and other distinguished merchants, whose liberality, foresight, and public spirit have contributed so largely, not only to the

material prosperity of New England, but to her high commercial reputation both at home and abroad. They extended the bounds of her foreign trade, devised and supported her manufacturing establishments, planned and built her railroads, created or endowed her institutions of charity and education. A few of them obtained eminence as legislators and statesmen, though political pursuits never formed more than a brief episode in their active career. Generally they preferred to serve great public ends in a private station, where their influence was not less extensively felt because it was never obtrusively manifested. The biographies of a few among them have been recently published, and have been received by the community with an interest proportioned to the importance of their labors and the worth of their example. A brief sketch of the life of Mr. Dwight, compiled from scanty but trustworthy materials, may now be added to the number of these records.

EDMUND DWIGHT was born at Springfield, Massachusetts, November 28th, 1780. His father, Jonathan Dwight, was a second cousin of the celebrated theologian and poet, Timothy Dwight, who was, for nearly a quarter of a century, the President of Yale College. The mother, whose maiden name was Margaret Ashley, died while Edmund was yet a child, and his father married a second, and subsequently a third wife. There were six children in the family, two daughters and four sons, of whom Mr. Henry Dwight, of Geneva, New York, is now the sole survivor. These children were chiefly educated at home, in such schools as Springfield, then a small place, afforded. The father, who was in prosperous circumstances, kept a store and also cultivated a piece of land; and his sons, as was usual with country lads in New England, when they were not occupied in school, often assisted in performing the ordinary labor upon the farm. Edmund, who was active and athletic, found his share of this work by no means unpleasing, and often afterward referred to it with pleasure. He was trained to careful and thrifty habits, after the pains-taking way of New England agriculturists in the last century; and the homely maxims, which he then learned, were remembered and cited by him with point and humor in his subsequent career. Thus he would remind a negligent or heedless worker of the necessity of "sweeping after the cart." He was wont to boast, also, that he was the best foot-ball player in the village.

After completing his preparatory education at school, he entered Yale College, at about the same time that his distinguished relative became president of that institution; and he was graduated there in good standing in 1799. His early destination was for the bar, though the choice was probably made more in compliance with

the wishes of his friends, than from his own predilections, which certainly inclined rather to an active than a studious life. He entered the law-office of Fisher Ames at Dedham, and probably lived for a time in Mr. Ames' family; at any rate, he formed and always retained the strongest admiration and affection for Mr. Ames, who was very kind to him, introducing him to his friends, and thereby to the best society in Boston. The conversation of Mr. George Cabot, Chief Justice Parsons, and other members of that brilliant circle of which Mr. Ames was the centre, made a deep impression upon him, and in later life, he spoke of it as the most fascinating and effective which he had ever heard. These gentlemen were the leaders and champions of the old Federalist party, which was still predominant in New England, though it was fast losing its ascendency in the country at large. There was something chivalrous in their attachment to it long after their sagacity perceived that its prosperity was waning, and that defense of its principles was no longer an introduction to popularity and power. Veneration for the character of Washington was a part of their political creed, almost of their religious belief. The earnestness with which these opinions were held, the high-toned conservatism which characterized them, and the eloquence and wit with which they were defended, naturally had a strong effect upon the mind of a young man, who, at the same time, was grateful for the notice which was taken of him and for many marks of personal kindness. Mr. Dwight was too resolutely self-reliant in his turn of mind to follow implicitly, and through life, the opinions of others, however high the authority whence they emanated; but it is probable that his views of society and politics, and even his estimate of many distinguished individuals at that epoch, were a good deal colored by the conversation which he heard in the law-office at Dedham, and in that circle of society of which Mr. Ames was one of the brightest ornaments.

After completing his law studies, Mr. Dwight became desirous of visiting Europe, a project which was then far less common than it has become, through the growth of opulence and the increased facilities of travel, in our own day. To obtain the means of carrying this plan into effect, he proposed that his father should give him immediately what would be his ultimate share of the inheritance, saying that he would not ask for any thing further, but would depend in future entirely on himself. Such a proposal was in perfect accordance with his character; at once resolute in executing any purpose which he had deliberately conceived, and confiding in his own strength for meeting any future exigences which such conduct might bring upon him.

His father having acceded to this proposition, he crossed the Atlantic in 1802, and remained abroad about two years. It was a busy time in the affairs of Europe, and especially in the politics of England, to which country Mr. Dwight's visit was chiefly directed. The peace of Amiens, which might rather be called a truce, as it was made without good faith on either side and lasted only a little over a year, had just been declared; and a vehement party struggle attended both its commencement and its close. The Whigs, though their party comprised much of the best talent and the highest rank in the kingdom, were in a hopeless minority; but the Tories were shorn of their strength through their dissensions with each other. William Pitt had retired from office, that he might not have any hand in the conclusion of a peace which he deplored, at the same time that he recognized its necessity; but when the renewal of the war became imminent, he was haughtily indignant that his substitute, Mr. Addington, should be unwilling to restore to him the reins of power. In order to drive out the administration, he entered into a coalition with his old opponents, the whigs; and though the king resolutely supported his prime minister, an opposition made up of the combined forces of Pitt, Fox, Sheridan, and Grenville was too much for the nerves of Mr. Addington, who, after a memorable struggle, and while a majority were yet at his command, gave way to his imperious opponent, and shortly afterward humbly consented to take office as his subordinate. Mr. Dwight was present as a spectator in the gallery of the House of Commons during the vehement debates which preceded the dissolution of the Addington ministry. The eloquence of the chief debaters made a strong impression upon him, especially that of Pitt, who, he thought, had finer natural qualifications for oratory than any speaker he had ever heard. A rich and powerful voice, and great copiousness of speech, added much effect to his loftiness of tone and weight of argument. He spoke like one who held in his hand the destinies of three kingdoms and the fortunes of a great war. The politics of America at this period hinged in a great degree upon those of Europe, and perhaps the predilections of Mr. Dwight as a Federalist enhanced his administration of the great English statesman.

Sometime in 1804, Mr. Dwight returned to Massachusetts, and immediately engaged in commercial business with his father and brothers in Springfield. Though his mind was cultivated by study, travel, and acquaintance with the world, he had not the distinctive tastes of a scholar, and was entirely free from the love of display which draws so many young men into the liberal professions. His choice of an

occupation was probably determined by his strong love of independence, his disposition to form extensive and far-reaching plans, and his wish to exert the influence which the possession of great wealth invariably bestows. Under a quiet demeanor and very courteous manners, he concealed an iron will and great steadfastness of purpose. These qualities had ample scope in his occupation, and contributed to its large success. The business in Springfield had its head quarters in a large store on the corner opposite his father's house; but it was rapidly extended, and soon included several branches in the neighboring towns. Being united with banking and other matters, it gave full employment to the several members of the firm, and exerted much influence on the commercial prosperity of the town and the neighboring country. It was attended of course, with the usual vicissitudes of trade; but Mr. Dwight's excellent judgment and cool but persevering character saved him from any marked reverses. His mind was fertile in schemes and resources, though it was somewhat impatient of details, which he willingly intrusted to others. He belonged to the second class of persons characterized by Lord Bacon, when he says that "expert men can execute and judge of particulars one by one; but the general counsels, and the plots, and the marshaling of affairs come best from those that are learned."

Mr. Dwight's business led him frequently to Boston, and here he became acquainted with and married Miss Eliot, in April, 1809. She was the daughter of Samuel Eliot, then an eminent and successful merchant, whose munificence in founding during his lifetime that professorship in Harvard College which now bears his name, was allowed to become known only after his death. The marriage was an eminently fortunate one, contributing largely to the happiness of both parties to it for more than thirty-five years, Mrs. Dwight's decease taking place but a short time before that of her husband. Her sweetness of disposition and firmness of Christian principle diffused sunshine not only in her own household, but throughout the sphere in which she moved. Her goodness was spontaneous; it cost her no effort to be patient, loving, and charitable, but her excellent understanding and severe habit of self-control were needed to preserve these gentler virtues from passing by excess into their neighboring faults. She had much to bear; ill health, in a form attended by great suffering, cast a shadow over many of her years. But the gloom never touched her character or chilled her feelings; on the contrary, her sympathies were never more quick and active, or her charities more unceasing, than when pain seemed to require her attention to be centred on herself. She found her medicine in doing good; she

could derive an enjoyment from entering into the feelings of others, and especially from sympathizing with the happiness which she had helped to create, which brightened her darkest hours of personal suffering. As a wife and a mother, her virtues were best known and appreciated, of course, by those of her own household and her own blood; but there was an atmosphere of goodness about her, which not even a comparative stranger could approach without acknowledging its genial and sunny effects. Out of her own family, she preferred that her kindness should be felt, not known. Her charities were constant, but secret, like the rivulet whose sunken course is betrayed only by the brighter green along its banks. Yet to those who knew her intimately, it seemed that even her beneficence could be better spared than the influence of her visible example; and that her peculiar province was to render goodness attractive by the charm of her manner and the silent teachings of her character.

The first ten years of Mr. Dwight's married life were spent in Springfield, in the active pursuits of his business, diversified only by an occasional visit to Saratoga or Washington. He took considerable interest in politics, though in his characteristic way, preferring to accomplish certain results, rather than to allow his own action in the matter to become known. From the strength of his character and his resoluteness of purpose, he had very considerable influence over others when he chose to exert it. They were content to follow his advice, because it was so quietly given, and because he claimed no merit to himself when the end was attained through the means which he had pointed out. His convictions were strong, and his use of means varied and unwearying, when he had a point which he thought worth carrying. Before he left Springfield, it was understood that he might have been chosen to Congress from that district. But the office had few attractions for him; he was no public speaker, and he probably thought at that time that he could ill afford to leave his business. By not becoming a candidate himself, moreover, he could exert more influence over the action of those who were chosen.

Mr. Dwight removed his family to Boston about 1819, and soon afterward, formed a partnership there with Mr. James K. Mills, which continued till his death. The firm thus established soon became deeply interested in the manufacturing enterprises on a large scale which were then just obtaining a foothold in New England. There was something peculiarly attractive in such undertakings to a person of Mr. Dwight's temperament and opinions. It gratified both his pride and his benevolence, to be largely instrumental in building up villages and towns in districts which before were but sparsely popu-

lated, in compelling hitherto unused waterfalls to do the work of man, in opening a wide range of profitable occupation to thousands of families, and filling the ear with the noise of engines and the busy hum of industry, where once only green fields silently basked in the sun. His interest in these nascent enterprises was further increased by feelings of local attachment. Though a resident in the metropolis for the last thirty years of his life, he always continued to regard Springfield, and the country immediately around it, with the peculiar fondness which no person of quick sensibilities ever ceases to entertain for his birthplace and the home of his earlier years. The noble Connecticut, with its fair margins of fertile meadows, always retained, in his estimation, the preëminent importance which he had naturally attributed to it as a boy born and bred upon its banks; and up to the close of his life, he was accustomed to speak of it as "the river." The Chicopee, one of its fair tributaries, emptying into it a little above Springfield, and well adapted for manufacturing purposes, was selected by him for the beginning of the experiment; and the work thus commenced was carried forward, more or less through his agency, till every spindle was turning which the lower portion of that stream—all that came within his sphere of operation—could set in motion. The manufacturing villages thus created upon its banks were regarded by him with feelings of peculiar pride and interest. It was not merely that they were the tokens, as they had been to a considerable extent the means, of the increase of his wealth; though his fortune had grown with the growth of the manufactures of New England. But he could point to them and to the prosperity of their inhabitants as, in great part, his work. One fine summer morning, in the latter part of his life, I had the pleasure of accompanying him on a drive in his own vehicle through these villages, to visit the site of the projected new city of Holyoke. The magnificent scheme for building up this new city, by damming the broad Connecticut itself, and thus obtaining almost an illimitable water-power, was one, if not entirely of his own inception, to which he had largely contributed from his means, and his powers of contrivance and execution. If the undertaking was begun too soon or carried too far, still the mistake was such as to show the bent of his mind and the generosity of his feelings. He spoke of it to me as a noble project, and as one in which he was deeply interested, though, at that period of his life, he could expect to see it carried but a very little way toward completion. He had only put the affair in motion, he said, in order that his son, and others who were to come after him, might have the pleasure of watching its progress, managing its details, profiting by its results, and at last, when the new

city had become flourishing and populous, of being able to say that it was *their* work. He wished them to have the same feelings of pride and enjoyment, though on a much larger scale, which he had experienced in building up the manufacturing establishments along the Chicopee by the side of which we were riding. Of the magnitude of these enterprises, which he had fostered or first put in motion, we find incidental notice in a letter which his partner had occasion to write and publish in 1841, in order to aid the movement in favor of common schools. "The house with which I am connected in business," said Mr. Mills, "has had, for the last ten years, the principal direction of cotton mills, machine shops, and calico-printing works, in which are constantly employed about three thousand persons."

Another undertaking of a still more public character, in which Mr. Dwight took an early and active share, was the construction of the Western Railroad from Worcester to Albany. Those only who know how heavy were the clouds and difficulties under which this magnificent work was planned, prosecuted, and finished, can appreciate the persevering efforts and continued sacrifices of its early friends and directors. Mr. Dwight's sound judgment and far-reaching foresight saw the end from the beginning,—the ultimate triumph, in the midst of the early perplexities and the accumulating causes of delay and disappointment. His public spirit was deeply interested in the enterprise, and he saw clearly its transcendant importance to the prosperity of his native State; and his local pride was an additional spur to exertion in the cause, as it was finally determined, probably in a great degree through his efforts, that the road should pass through Springfield. The scheme was of that large and generous character, also, which was peculiarly attractive to his temperament. It did not appear to him as a mere commercial speculation, likely to be profitable in itself. Had this view alone prevailed, the road would not have been constructed till a much later day. But he appreciated its indirect advantages, its effects upon the large towns along its route, and upon the commerce and industry generally of the whole State. These gains were sure; and hence he never faltered in the undertaking amidst all its early failures and discouragements. At the first meeting of the corporation in which any decisive movement was made, held January 4th, 1836, he was appointed one of a committee of three persons, to see that all the necessary preliminary steps required by the charter had been taken. This committee reported at an adjourned meeting held on the following day, when Mr. Dwight was chosen one of the Board of Directors which commenced active operations. He

was continued at this post, by successive re-elections by the stockholders, till February, 1839, by which time, all the main features of the policy of the company had been determined, the road had been nearly completed as far as Springfield, and considerable work had been done upon the line west of that place. The policy which he supported, and which finally prevailed, was to intrust the execution of the work to highly educated scientific engineers, so that it should be completed in the most thorough and durable manner, instead of consulting cheapness by the employment of another class of persons, familiar only with the practical details of such business. During the three years, 1839-41, Mr. Dwight was not upon the board; but in 1842, he was elected by the legislature a director on the part of the State, and in the following year, he was appointed president of the company, in place of Mr. Bliss. This office, however, he held but one year, though he remained a director on the part of the State till February, 1849, when, by the terms of the law, he was no longer eligible. But he was immediately re-elected by the stockholders, and was a member of the board at the time of his decease. He had thus an active share in the management of the road for about ten years, embracing the earlier period, in which its completion and success were most doubtful, and the later one, when its affairs were most prosperous and the utility of the work was unquestioned.

A full account of Mr. Dwight's services to the cause of education could be given only in a complete history of that renovation of the common school system in Massachusetts, and indeed throughout the northern States, which took place during the last fifteen years of his life. But such a history would be out of place here, where there is room only for general statements and a brief mention of a few particular facts. Mr. Dwight's fortune had become large through his own exertions, and he had the disposition to make a munificent use of it; but he was not content to give for the mere sake of giving, or in order only to establish a reputation for generosity. His ambition was rather to set on foot some large enterprise, of comprehensive and lasting utility to his fellow men, to which he could render efficient but silent aid by his counsels, his personal efforts, and his purse. If he had any private feeling to be gratified in the matter, it was a consciousness of power and influence. He was an eminently a sagacious and practical philanthropist, far-reaching and even magnificent in his purposes, but patient in execution, finding, perhaps, a pleasure in contending with difficulties, shrewd and clear-sighted in the selection of means, and yet preferring to leave the details, and what may called the out-door conduct of the matter, to others. No undertaking could

have been better suited to his temperament than this endeavor to raise the standard and enlarge the means of popular education. The common school system of New England, once its peculiar boast, had not kept pace with the age or with the increasing population and prosperity of the country. It had degenerated into routine, it was starved by parsimony. Any hovel would answer for a school-house, any primer would do for a text-book, any farmer's apprentice was competent to "teach school." The evils and defects of the system, or rather the want of system, were perceived by a few reflecting persons, who began, as early as 1824, to expose them by the voice and pen, attempting to rouse the people of the State from their apathy upon the subject. Among these earliest friends of the cause, Messrs. William C. Woodbridge, James G. Carter, and George B. Emerson deserve to be gratefully remembered. In 1835, through the agency of Mr. James S. Wadsworth of New York, Mrs. Austin's abridged translation of M. Cousin's celebrated "Report of the State of Public Instruction in Prussia," was republished in this country, in a large edition, and extensively circulated. This was a judicious and timely step, as the work contained the outlines, and even the minute details, of the most elaborate and complete system of common schools which had yet been devised in the civilized world. The attentive reader of it could perceive how much there was to be done, and could see the general character of the means and agencies through which the work was to be accomplished.

Mr. Dwight's attention had been previously directed to the subject, probably, in part, through his observation of the effects of a want of education upon the efficiency of the operatives in our great manufactories; but the perusal of this Report served to inspirit and harmonize his designs. Henceforward, he gave his whole energies to the work; it became one of the leading purposes of his life. His house became a centre of meeting and consultation upon the enterprise, and for many years, hardly one important step was taken in relation to it but with his advice, or on his urgency. Many of those whom he sought to interest in it looked coldly upon the design, because it was so encompassed with difficulties as either to appear quixotic, or to promise only meagre and profitless results. No one was more clear in his perception of these difficulties than Mr. Dwight, for his temperament had all the warmth and persistency, but none of the blindness, of enthusiasm. A clear and precise estimate of the obstacles in the way was the first step to be taken toward their removal. Massachusetts had established her school fund in 1834; this was an engine to work with, but unless skillfully directed, the existence of such a fund might be, as the example of Connecticut had proved, rather a curse than a blessing.

The decentralized system of government, which is the peculiar boast of our New England polity, throws the management of the schools into the hands of the towns, or rather of the school districts, which are small subdivisions of the towns. To take the control away from these little local authorities, and vest it in a central power at the seat of government, which was the European plan, would be to sacrifice all the advantages of exact supervision and frugal management, and to render the pressure of taxation for the support of that central power an odious and intolerable burden. Yet some centralization was necessary, in order to introduce method and regularity into the system, and to obtain the statistical returns and detailed information, without which, all the labor expended would be but groping in the dark, and might do more harm than good. The plan devised by the little volunteer council of which Mr. Dwight was the centre, was carried into effect by the school law of 1837, passed by the legislature under the active patronage and influence of Mr. Edward Everett, then governor of the State. It established a Board of Education, consisting of the governor and lieutenant governor, with eight unpaid members appointed for a limited term from the people at large. The duties of this Board were to collect information, devise plans, and make recommendations; it had little or no direct authority. It was made obligatory upon the towns to furnish the information which the Board might require, as a condition of receiving their share of the income of the school fund. Mr. Dwight was appointed one of the original members of this Board, and though his actual term of service upon it was short, owing to the limitations of the law, he continued a virtual member of it for the rest of his life.

The following is an extract from the Thirteenth Annual Report of this Board, made in December, 1849. Alluding to the then recent death of Mr. Dwight, the Report goes on to say, "it was through his exertions, perhaps, more than other individual, that this Board was established, and through his liberality, more than that of all others, that it was enabled to prosecute the system of measures which has resulted in whatever of success it has achieved. One of the first members of the Board, he watched over and took part in its proceedings with a never failing interest. To obtain the highest order of talent in the office of its Secretary, he at the outset engaged to increase the compensation allowed to that officer by the State to an amount which secured the object. The contribution was continued until his death, when it was found that he had provided by his will for its payment three years longer. In the early history of the proceedings of this Board, when it was deemed indispensable to establish

a system of normal school instruction, and it was feared that it would be difficult to obtain an appropriation from the legislature sufficient for the trial of the experiment, he promptly placed in the hands of the Secretary of the Board the sum of ten thousand dollars, to be used for that purpose, on condition that the State would appropriate an equal amount for the same object; and thus at once insured its accomplishment. On numerous other occasions, with open-handed liberality, he contributed important pecuniary aid in carrying forward the designs of the Board and of its Secretary. All this was done in that quiet and unostentatious manner which was characteristic of the man, it never having been made known to the public from what source these benefactions came until a short period before his death, and then by no agency of his. He was content with the consciousness of having done a noble deed, and regardless of the fame which followed it."

Mr. Dwight's benefactions to the cause, here briefly alluded to, were as seasonable and judicious as they were munificent. The first in time may also well be deemed the first in importance, as it was the means of securing the invaluable services of Mr. Horace Mann, whose peculiar fitness for the post of Secretary and principal agent of the Board was early discerned by him to be an indispensable requisite for the success of the measures which were then contemplated. To the mere pittance which the State granted as a salary for this office, Mr. Dwight added five hundred dollars a year from his own purse; and as this annual payment was continued for sixteen years, the whole amount of his contribution for this particular end was eight thousand dollars.

In about six months after making provision for these payments, Mr. Dwight made the further offer, above mentioned, of ten thousand dollars for the support of normal schools; and the commonwealth having acceded to his conditions by granting ten thousand dollars more, these schools, an indispensable part of the original plan of operations, were soon organized and put in efficient action. To this donation Mr. Mann himself alluded as follows, in a published address delivered the following year, in which, however, the donor is mentioned only as a "private gentleman." "Vast donations have been made in this commonwealth, both by the government and by individuals, for the cause of learning in some of its higher, and, of course, more limited departments; but I believe this to be the first instance, where any considerable sum has been given for the cause of education generally, and irrespective of class, sect, or party. Munificent donations have frequently been made amongst ourselves, as well as in other States and countries, to perpetuate some distinctive theory or dogma of one's

own, or to requite a peculiar few who may have honored or flattered the giver. But this was given to augment the common mass of intelligence and to promote universal culture; it was given with a high and enlightened disregard of all local, party, personal, or sectional views; it was given for the direct benefit of all the heart and all the mind, extant or to be extant, in our beloved commonwealth; and in this respect, it certainly stands out almost, if not absolutely alone, both in the amount of the donation, and in the elevation of the motive that prompted it."

Again, in 1845, an offer was made to raise five thousand dollars by private subscription, on condition that the legislature would grant five thousand more, in order to erect two buildings for the Normal Schools; and the offer being accepted, the money was raised, chiefly, it is understood, through the exertions and by the aid of Mr. Dwight. The following is extracted from Mr. Mann's Annual Report, made in December of the same year, the transaction to which it refers having taken place but few months before. "Early last summer, when explaining to that liberal and well known friend of our common schools, the Hon. Edmund Dwight, the advantages which might accrue from holding Teachers' Institutes in Massachusetts, and stating my apprehensions to him, that an obstacle to their adoption might arise from their expense, which the country teachers, on account of their small compensation, might feel unable to incur, he generously placed at my disposal the sum of one thousand dollars, to be expended in such manner as might be deemed most expedient for promoting the object. This sum was amply sufficient for a fair trial of the experiment."

Large as were these pecuniary gifts, amounting in the aggregate, with the inclusion of some the history of which can not now be traced, to a sum little less than twenty-five thousand dollars, they must not be accounted the most valuable of Mr. Dwight's contributions to the movement for enlarging and improving our system of common schools. His personal exertions in the cause were indefatigable and incessant; it was the chief business of the latter part of his life. He was consulted at every step; his clear judgment and practical sagacity suggested many of the most effective measures that were pursued, and smoothed the way for the accomplishment of others. He was especially watchful to guard the movement against any connection with party or sect, and even against any suspicion of such; as he foresaw that opposition based upon political or sectarian grounds would quickly make shipwreck of the whole plan. To be successful, the people must be unanimous in its favor; and no one knew better

than he how to make and keep them unanimous. He had much influence with the members of the legislature, especially with those from the country and the western part of the State; and after 1840, he was himself elected for several years to the lower House, where his opinions upon any matter connected with public instruction were sure to command attention and ultimately to prevail. Not less important was his action in moderating the ardor of those who were actively and heartily coöperating with him in the work. If the hot zeal and impatient temper of some among them stirred up hostile feelings, which might possibly grow into a formidable opposition, his wise and moderate counsels allayed the excitement and restored harmony. His own disposition, though very firm, was tolerant; he was patient of any diversity of honest opinion, while he abhorred meanness, evasion, or duplicity.

It is hardly necessary to speak here of the brilliant success of the noble undertaking, which in great part originated with him, which he so munificently supported, and for which he thought and labored so patiently and so long. The results are notorious, and have already become matter of history; they have far surpassed all the expectations which any judicious observer could have formed at the outset. The school system of Massachusetts has been renovated, and it is once again the pride of the State. Our public schools may now challenge comparison with any others in the civilized world, and a spirit has been awakened in the people which will probably sustain them in their preëminence. There needs no prouder inscription for any man's tombstone, than to say of him, that he was a principal agent in accomplishing so magnificent a work.

Mr. Dwight's habits during the latter part of his life were simple and regular. He went once a day to the counting-room, and was systematic in taking exercise. His evenings were almost invariably spent at home, and a part of every afternoon and evening was given to reading. And here his taste was, in one respect, peculiar; he had a great liking for sermons, especially those of the old English divines. He seemed to find more pleasure in actually reading Barrow and Jeremy Taylor, than some modern clergymen do in talking about them. His manners, though courteous and refined, in one particular did him no justice. The fastidiousness of his taste inclined him to repress all outward manifestations of his feelings and sympathies, though these were warm and active; and hence he often appeared cold and reserved, not only to strangers, but to those for whom he entertained a high personal regard. He indulged in no professions of esteem, and his eyes would sometimes fill with tears in keen sympathy

with the success of one to whom he had shown no previous indication of kindly feeling. Toward young men, whom he believed to possess good abilities and pure motives, his manner was always friendly and encouraging; he liked to see them at his house, and talked freely with them respecting their circumstances and intentions. His charities, which were mostly private, often took this direction; he assisted some members of the Cambridge Divinity School, who were never known to him except as having talent and needing help; and in two instances, at least, he paid the bills at college of the sons of clergymen to whom such an expense might have been burdensome. A communication which appeared in the Christian Register shortly after his decease, and which is understood to have been written by a distinguished clergyman, is so honorable both to him and to the writer, that it is subjoined in a note.*

Mr. Dwight's regular habits and almost uninterrupted health during his later years seemed to justify the expectation that he would attain to great age. But the summons came suddenly, before he had quite reached the limit assigned by the Psalmist. What seemed at first only an attack of influenza, brought on an inflammation of the diaphragm and pleura, and, after a short but severe illness, caused his death. He died on the first of April, 1849, at the age of sixty-eight years.

Instead of attempting to give a summary of Mr. Dwight's character, it is fortunate that I am able to complete this imperfect sketch by the following letter, written by one whose acquaintance with him commenced at a much earlier day than mine, and who wishes to add his tribute to the memory of the friend whom we have lost. The writer is the Hon. Theophilus Parsons, now Dane Professor in the Law School of Harvard University.

CAMBRIDGE, April 22, 1857.

TO PROFESSOR BOWEN.

"*My Dear Sir.*—I am very glad that you are preparing a memoir of our friend, Mr. Dwight. Few men have a better claim to be remembered than he; and few or none are better able than you to make this remembrance just, because you knew him long and well; and your relations with him were of a kind to bring forth his characteristic qualities with great distinctness. I am obliged to you for the opportunity of speaking of one at whose death I mourned, as for the loss of one of my best friends.

I became acquainted with him thirty-six years ago. I was then twenty-three years old, and intending to go to Taunton to open an

* See note, p. 28.

office there, and hearing that Mr. Dwight had some friends in that town I called on him for letters. He received me most kindly; and after a brief conversation, remarked that a great manufacturing corporation was then going into business there under favorable prospects, and that it might be useful for me to own a few shares. They were then in demand, and above par in price. He said, at once, however, that I should have six of his, ($500 each,) and when I asked him the price, said, "O this is hardly a business transaction; take them at par." I did so, and they rose very rapidly on my hands.

From that time to his death, I was honored with his intimacy and friendship. There were periods when I lived out of Boston, during which we met only at long intervals; but at other times I saw him very often. And as if to end as he began, a year or two before he died, he came into my office one forenoon, and said he had been thinking over certain matters we had talked of the evening before, and came to advise me to take a personal interest in an arrangement then going on. I replied that it seemed to me to offer a favorable opportunity, but I had no surplus funds undisposed of, and not being in the way of raising money I could not do it without some trouble. "I will see to that" said he; and the next day, he placed in my hands not only without request or even thought on my part, but entirely on his own suggestion, ten thousand dollars. Nor was this all; for a day or two after he said to me, "I have been thinking that this affair may not end at once, and for a while you may need further advances; and life is uncertain, and I have arranged with my friend, —— —— who will supply you if I should be taken away." The obtrusion of these personal matters upon your notice can only be pardoned, if I can show a good and sufficient reason for doing so, and I think I have that reason in my wish to illustrate so far as these occurrences may do it, some of the grounds of my judgment of this man. To many he seemed harsh, severe, and withholding; and to many I believe he was so. But when I have spoken to others of the way in which he always treated me, I have found again and again, that to others also he was equally kind; nor do I think it difficult to explain his character on this point.

He did not think well of mankind. He was sagacious and sharp-eyed, and could detect through any disguise, any of the many elements of character which constitute untrustworthiness. He saw these quite too often; and he expected to see them very often. And therefore he distrusted most persons; and however courteous in manner, kept them at a distance. But he did not *love* to distrust. Where he had satisfied himself that he might safely give his confidence, he gave

it as one does what he is glad to do; he did it fully and unreservedly. And then he indulged himself in being kind, benevolent and useful, to a degree in which if I were to speak from my own experience or observation, I should say he was surpassed by no man.

There was another point in his character, in which it seemed to me he was somewhat remarkable. While he exacted prompt and full obedience from all those from whom he was entitled to expect it, I never saw in him the slightest approach to a demand of submission from any who did not stand in relations which gave him or seemed to give him a right to it. If I may again refer to myself, I should say that no one more perfectly respected my freedom of thought, utterance, or act, than he did through the whole of our long intimacy. On many points we differed greatly; but he never, in the slightest degree, presumed upon our friendship or upon his kindness, to play the master. Still, in any case and in any degree in which he thought he should be master, he would be.

Of his public relations you knew more than I did. Of his constant endeavors to promote whatever seemed to him the interests of sound learning; and of his sagacious and generous aid to the great cause of education, you will speak fully.

He was not himself eminent as a scholar. But he was well educated, and read a good deal; and read thoughtfully, and with wise selection; and profited by what he read; and many pleasant conversations have I had with him on topics which his reading suggested. But he was not a scholar; and no man was ever further from a false pretense of scholarship.

During many years, he was the man whom I most consulted when I wanted advice on almost any subject, especially if of a practical character. More than any other person whom I have known he seemed to me to reconcile the antagonistic qualities of boldness and caution. Years ago I said to one who was intimate with both of us, that Mr. Dwight was a living proof that phrenology—as I understood it—was entirely mistaken in identifying *fear* with *caution*, by ascribing both to the same organ. Be that as it may, (and I am no phrenologist,) I never knew a man who was more cautious than he appeared to be at all times and on all occasions; but I never knew him to manifest any thing like *fear*. I mean that he decided slowly, and after a careful weighing of all the reasons which a very wide and far-reaching view of the subject could suggest. But fear never came in to cloud his insight, or disturb his conclusions, or obstruct the execution of his plans. How he was to others in this respect, I can not say. I knew him but in few and limited relations, although I knew

him so long and so well; and can only say that to me he seemed eminently, *a man who did not make mistakes.* And I have supposed that his great success in life was built up, step by step, by the same combination of caution and courage, of sagacity and executive force, which I thought I saw him constantly manifest.

If I speak of him with what may appear to you or others undue commendation, let me at least assert, by way of apology if one is needed, that during a very long period he had been kind to me always; and as kind to me as was possible; had never exacted from me or seemed to desire any other return than that of an equal friendship; and that in all this I am describing, not a day, nor an incident, but thirty years.

I am, Dear Sir, your friend and obedient servant,

THEOPHILUS PARSONS.

P. S. I wrote the above this morning in my office. As I was writing the last words, my friend and colleague ex-governor Washburn came in, and I read the letter to him, because I knew that he too was intimately acquainted with Mr. Dwight.

"I am delighted," said he, "that you have written just that. It is all of it his due. I knew him well more than a quarter of a century; and was in the habit of frequent and confidential intercourse on many topics, and especially on many of a public or legislative character; and to the extent of my own knowledge and belief, I fully indorse every word you have said of him."

NOTE.

"A DEBT OF GRATITUDE.—About seventeen years ago, two graduates of Harvard College, who had resolved to enter the Christian ministry were at a loss for the requisite pecuniary means, and had decided to delay joining the theological school, until they had, by their own earnings from teaching, or some other occupation, procured the needed amount. An offer from a secret source was made them of a sufficient sum to meet the expenses of the school, if they would immediately enter upon its duties. The offer was accepted, and exerting themselves all they could to aid themselves and lessen the burden upon their secret benefactor, they found always a sum adequate to their needs, ready for them at stated intervals. They completed their studies, and have now been for many years in the ministry, happy in its labors, and grateful for its privileges.

The writer of this note, one of the two, was long wholly ignorant of the source of the opportune bounty; and when the name of the giver was accidentally discovered, it was under such circumstances as forbade even a word of gratitude, as the communication was made to the informer on condition of secrecy, and this condition, though not rigidly observed by him, could not but be respected by the party thus informed of the kindness of a benefactor who insisted on remaining unknown.

Death has now removed this condition.

Deprived of every other opportunity of expressing his feeling, a Christian minister who has enjoyed much in his profession, takes this method of paying something of his debt of gratitude, and thus adds his humble offering to the numberless tributes due to the memory of Edmund Dwight."

[This letter was written by Rev. Samuel Osgood, D. D., of the Church of the Messiah. Ed.]

II. PUBLIC PRAYERS IN COLLEGES

BY PROF. F. D. HUNTINGTON.

In all the principal seats of learning in the United States there is a daily social service of devotion for the students. We are not aware of a single exception to this religious usage. There is doubtless an extensive and spreading impatience of religious forms; there are tendencies in American society and in our political institutions which operate to heighten this jealousy; there are habits of speculation which foster distrust of everything like constraint or fixed ceremony in the concerns of faith; even among some avowed Christian believers, and in the name of a special spirituality, there exists a theory that every exercise of worship is false which is not strictly spontaneous, and accordingly that to compel attendance on a prayer is both an absurdity in administration and an affront to piety. But, thus far, these views have not, where our knowledge extends, organized any considerable seminary, for either sex, in which the inmates are not regularly assembled to own their daily dependence on the Almighty Father, to confess Christ, and to implore the gifts of the Spirit. Whatever the notions or doubts of educators may be, it seems to be practically felt that some sort of moral power is lodged in such an observance. An indistinct sense lingers in the mind that somehow the interests most sacred and most prized, in these assemblies of youths, are at least safer with it than without it. Whether its essential spiritual comeliness and dignity are generally recognized or not, the venerable traditions of Christendom sustain it and demand it. To a literary institution wholly renouncing it, the community would find a grave difficulty in continuing its confidence.

With the right-minded guardians and officers of education it becomes a vital and important question, how to conduct these exercises so that they shall fulfil the manifest purpose of their appointment; have a spirit as well as a shape; bring a devout sacrifice as well as a bodily attendance; diffuse a hallowing influence over the restless and eager life congregated there; awaken strong resolves and pure aspirations, call down the answer and benediction of Heaven. In many

instances, as we have abundant reason to believe, the method is far from satisfactory either to those that listen or those that lead. Sometimes the whole performance appears like a performance merely, — a mechanical repetition, a lifeless routine, negative at best, a scenic exhibition, too familiar to be interesting, and too bare to be beautiful, — a simulacrum. But it is instantly known that it cannot be *that*, without being something worse than that. Professing to be communion with God, the highest and holiest of all acts of which man is capable, the moment it degenerates into a heartless function it falls below respectability into profanity, becoming as offensive to the Omniscient Majesty as it is irksome to the compelled participators. Sometimes the occasion is one of listlessness. Sometimes it is a scene of positive disorder. So many are the elements to be reconciled, in fact, and so delicate the conditions of a sacred success, that it may be said, we presume, without hazard, that the result is very rarely all that is desired.

Perhaps the first condition of any adequate benefit from the service is that it be treated by all that are responsible for it as a reality; as what it pretends to be; as real prayer. After all, to a striking degree, the tone and manner of a whole institution will insensibly take their character from the manifest spirit and bearing of its principal conductors. Let it be plain to every hearer and witness that in these gatherings there is more than a pretence of praying. Let it be seen that in one at least, in him who is speaking, and in as many as do truly accompany him, man is verily speaking to his Maker, and speaking in an humble expectation that he shall be heard; — telling his real wants, acknowledging sins that he really deplores, breathing requests for helps and blessings that he really desires. A nameless power and impression will inevitably go with such devotions. Artifice will be driven out. The ingenuities of invention, in thought or phrase, will never so pass the line of simplicity as to trespass on the awful sanctity of the Ineffable Presence invoked. Excess of human elaboration and indolent neglect are equally alien from a veritable intercourse with the Father of spirits. And nowhere is either error more likely to be seen through and despised than in an auditory of young men. Their quick moral instincts, and their yet unperverted habit of judging without the bias of a mere current and institutional propriety, render them accurate and searching critics of sincerity.

Were the modern naturalistic theory of prayer and its effects to be generally accepted, our suggestions would, of course, be impertinent. That theory, making all devotion not only dramatic, but illusory, and ascribing all its apparent effects to a reäctionary excitement of

the worshipper's own faculties, turns the idea of *reality* into ridicule. We are to go through the genuflexion, the mumbling, the expectant posture, the use of the vocative case, the solemn tone and pleading cadence, and measured form of stately language, *just as if* God heard and might answer, but with a perfectly cool private understanding of the philosophical mind, all the while, that the display is purely scenic, the Deity himself being as much removed from the transaction as he is from the praying-machine of the Eastern idolater. Indeed, is there a Deity left? Where is he? What is his care for his creatures? Of what nature are those affections that enjoin prayer as a duty, under a promise that it shall be heard, only to cheat first the credulous intellect, and then mock the disappointed heart? This cannot be the God and Father of our Lord and Saviour Jesus Christ, who was so wonderfully and tenderly revealed to his children, when it was affirmed of him that he numbers the hairs of their heads, and notices the fall of the sparrow, and who has compressed the whole mystery and *rationale* of prayer into the one gracious and eternal pledge, — "Whatsoever ye shall ask, believing, that shall ye receive." Nothing can more effectually dissipate veneration and explode worship, whether among the young or the old, than this superficial and impious interpretation, which is offered by some nominal teachers of the Bible to their pupils. It justifies the worst sneers that recklessness and infidelity have thrown at a histrionic, hypocritical priesthood. It is as short-sighted and self-contradictory as it is insulting to our manhood. If we are to pray only to warm our emotions, kindle our energies, elevate our mood, under the delusion that we are heard, as by a fetch, while He to whom the offering professes to ascend sits with sublime unconcern in a distant chamber of the universe, or slumbers like Brahm, then it is obvious only they will pray who have not yet found out the secret of the trick; and to explain the nature of the exercise, or to offer a reason for it, will be to dispel the charm and abolish the practice! Probably the notion was broached to protect the uniformity of what are called the laws of nature, and is a part of the qualified Pantheism that is so apt to attend certain stages of an immature and conceited science. But Nature's reputation is not to be saved by limiting the freedom or power of God. We shall not vindicate creation by binding the Creator. How it is that the free-will of God plays into the order of his works, and yet that he heareth and considereth the faint cry of the least of his poor offspring, is a wonder that science will not solve, at least till it passes over from its acknowledged province of analyzing, classifying and discovering facts, to define and exhibit the essence of being. No: Education, from its very beginnings, must

render unto faith the things that are faith's. The outward exercises of adoration must rest on a serene, immovable confidence in the personality of God, in the communications of his Spirit to man, in his willingness to draw nigh to them that draw nigh to him, in all those emotional attributes that move his Infinite Heart to answer to the sigh of pain, the tremblings of fear, the throb of hope, the anguish of penitence, and the joyful upspringing of love in every tempted and erring child. There must be a *reality*. Except for this it will be vain to make room, in the curriculum of secular institutions, for sanctimonious addresses to the Most High. To preceptors and pupils alike, the ceremonies of the chapel, so far from being effectual, will not even be decent, but a dismal conspiracy of mutual imposition and make-believe,—an awful initiation not only into the darkness of unbelief, but into the crime of a sacrilegious lie.

The particular circumstances of a literary institution will naturally impart a somewhat local and special character to the petitions and thanksgivings offered before its members. Young men are not insensible to this direct and peculiar reference to their wants. It touches their feelings and carries them more easily up to the Mercy-Seat. Thorough and relentless despisers of every species of cant, and commonly sensitive to sentimentalism, no class of persons will be found more readily and cordially to appreciate a kind word or a considerate desire in their behalf. Whatever the negligence of that external air which, in youth, is so often found to be the uncomely and graceless mask of honest gratitude and trust, they still like to know that their teachers care enough for their best welfare really to pray for it. Thoughtless and impulsive in their hours of social amusement, they are yet bound in esteem and affection to those set over them, who remember their troubles, sympathize with their conflicts and discouragements, and entreat God to bless their life, their homes, their friends, their studies, their reciprocal relations with their instructors, their bodies, their sports. And, therefore, allusions to the passing events of their experience, to the little incidents of the community, and to their individual trials, if made in a manly tone and with some delicacy of expression, are apt to engage their interest, and aid the best impression of the service. The differing usages of sects, as well as early associations, will have much to do in determining the frequency and particularity of such allusions. It is of the utmost consequence to avoid what may provoke comments, excite curiosity, or raise so much as a question of taste. Undoubtedly those are everywhere the best public prayers which at once enlist the most entire and respectful attention, by their fitness, variety and earnestness, while they are

being offered, and are afterwards treated with silence. For, in respect to worship, considered as a product of human thought or originality, silence is a higher tribute than the most approving criticism —except, perhaps, in those confidential intimacies where friends take sacred counsel together about the deepest things. And whatever the specific mention of the supplication may be, it will never be invested with so august a dignity, nor raised so completely above all cavil or levity, as when it can be put into some words out of the Inspired Book.

It is an interesting inquiry, what other exercises should attend the offering of prayer. But in this regard we apprehend there is already a considerable uniformity of usage, and that the simple schedule usually followed is not far from the best. Of course the Scriptures will be read. Here again let there be no formality. Let the passages be selected from different parts of the volume; and they may be profitably selected from almost every part of both the New Testament and the Old. Sometimes a consecutive passage, or even a short book may be read on successive days, with a certain advantage in keeping up the connection in the narrative or argument. But sequences of that sort often fall, we have thought, into a kind of visible mechanism, which young men do not love. It looks like a saving of trouble, and they feel put upon. Further, the Bible is not to be read as if it were an exercise in elocution. The grand object is to bring out the meaning, and get it in contact with the hearer's soul, with as little showing of self as possible. Whoso has reached into the depths of the Bible's heart will read it well. Some men's reading of it is more original, more suggestive of new ideas, than some other men's sermons. And this is no declaimer's device. It comes by a profound spiritual acquaintance with the inmost sense of that revelation of the mind of Christ. Whether brief remarks could be profitably thrown in, not to convey doctrine, but simply to uncover and explain the text, is worthy of consideration.

In some of our colleges the Scriptures and the prayer are accompanied by a hymn, sung by a choir, or, perhaps better yet, by the general body of the students. We are convinced the value of this addition cannot well be over-estimated. In all true, simple sacred music there is a nameless effect of good, against which few exceptional breasts are wholly steeled. It falls in with the better inclinations and hopes. It soothes irritability. It abates appetite. It shames meanness and lust. It assists the incipient resolves of the penitent. It comforts grief. It puts the whole mind into a more appropriate attitude for the prayer that comes after, unconsciously opening the hidden

avenues by which heavenly blessings flow down to nourish the growths of character. Probably this effect lies more with the strain of harmony than with the words. Hence the greatest pains and discretion are to be used in fixing the style of the music, — seeking to combine the noblest practicable artistic with the purest religious expression, attaining animation without a florid movement, and solemnity rather than surprises or startling transitions. Operatic flourishes and complicated fugues are as much out of place in chapel as rhetorical confessions of sin. Chants, if there is patience enough for the discipline and practice, are more appropriate for praise than any kind of psalmody. If a hymn is sung, let it be a hymn. A hymn is not a chapter of didactics, nor a moral essay, nor a piece of reasoning, nor a precept, nor a creed, nor an exhortation, nor a narrative, nor a catalogue of virtues, nor an inventory of the animal and vegetable kingdoms. A hymn is an aspiration cast into poetical language. Its purpose is to stir devout feeling, — at the same time conducting the soul in a penitential or jubilant frame to heaven, and quickening within it those social affections of humanity which prove mankind to be of one blood, in one brotherhood, under one Father. Nor can any group of human beings be anywhere found in whom these sentiments may be often waked to a grander purpose than a band of companions, already associated in the little commonwealth and the intense politics of their academic economy, and destined soon to take central and commanding places in the nation, for Christ, or against him.

Recent debates, in many quarters, have broached the question whether congregational worship is not, in some sense, disowning its own name, by being practically the least congregational of any worship in the world. Even if the sacerdotal idea has gone out, a service confined exclusively to one officiating individual retains the priest. To what extent a liturgical practice might be advantageously introduced into our colleges, where men of all denominations are assembled, is a point to be determined rather by cautious and guarded experiment than by preconceived opinion, or precipitate guess-work. We cannot conceive why such experiment should not be freely made, and conducted with forbearance and good-will on all sides. Among all parties there is, as we suppose, a common interest in finding out the best mode. Surely we can afford, at this time of day, to purify ourselves of the sectarian suspicion and the ecclesiastical narrowness which would reject the best, or refuse to search for it, because it might involve the adoption of a neighbor's way, instead of the pursuit of our own. We confess ourselves inclined to believe that if the Scriptures could be generally read alternately, as according to the

Hebrew parallelism, or responsively, between the minister and the congregation, in our colleges as well as in the churches, it would aid the whole object, by giving the laymen something so do, by enlivening the mind, by fixing the eye, by engaging two senses and a tongue in the service, instead of hearing alone. A free use of different methods is better than bondage to any one. Respecting the prayer itself, we feel very sure of this: it should be either expressly and obviously liturgical, or else be strictly extemporaneous, having the natural verbal variety of a spontaneous exercise. What pretends to be the latter, and yet consists of a familiar repetition of clauses, whether following in a certain order or not, is almost certain to become subject, at last, to unfavorable notice, and to fix upon the service a reputation of heartless routine.

Common sense and observation teach that the entire daily service should be short, — not extending over twenty minutes, altogether, at the longest. Fifteen are better than twenty. It is idle to attempt settling this matter by abstract notions, or to chafe at necessity, or to expect a promiscuous troop of boys, or men either, to be saints, and to keep positions of discomfort all the more quietly because they fatigue the limbs. Edification is the object, and edification should supply the rule.

And, as to the bodily posture, there is still occasion for experiment. It ought certainly to be uniform throughout the room. Sabbath assemblies may continue to affront decency, by the present mixed and vulgar manners, if they will; but in the decorum of a college or school such irregularity should be forbidden as an offence. If principles of absolute adaptation and correspondence were to govern the matter, there could be no doubt that the three appropriate postures for the house of God would be *standing during praise* (i. e., in all singing and the responsive readings of the Bible), *kneeling or inclining the head and body during confession and prayer*, and *sitting to hear the discourse*, or the lessons read, by the minister. In daily chapel services this order may be found impracticable, on the score of the maintenance of stillness, or the supposed necessity of keeping the persons of the pupils exposed to the eye of the government. Certainly the body during the prayer — the most important of the services — should have the greatest degree of ease consistent with a proper dignity, so as to furnish the least possible disturbance to the mind. Trifling accessories are not to be overlooked. Where it can be done, a palpable help would be gained to the silence, and thus to the just impression of the place, by some sort of carpeting on the floor.

The chief perplexities attending the subject arise from what was

just referred to, — the connection of the devotions with the discipline. Just so far as it can possibly be accomplished, that connection ought to be at once and completely dissolved. That this has not been more generally done in our colleges betokens an indifference to the highest claims of religion, and the laws of the spirit, painful to think of. In this direction, as it seems to us, is the great call for reformation. The secular administration of a college is one thing, and should rest on its own legitimate resources. The worship of God is another thing, and should have no other relation to the former than that of a morally pervasive and sanctifying influence. The chapel is not a constabulary contrivance, nor the chaplain a drill-sergeant. The Bible is no substitute for a policeman's club, nor for a proctor's vigilance. In some seminaries, it would appear as if the final cause for prayers were a convenient convocation of the scholars, as a substitute for a roll-call. They must be somehow brought together, in order to come under the eye of a monitor and be counted, and so they are summoned to praise God. Now we maintain — and surely it is a case that needs no other argument than an appeal to common Christian feeling — that all this should be forthwith changed. A spiritual approach to the Almighty Source of Truth should not be compromised by an extrinsic annoyance. If any students come to prayers reluctantly, their reluctance should not be aggravated by the additional odium of an academic economy put under a sacred disguise. Physical constraint should not thrust its disagreeable features unnecessarily into the sanctuary. And therefore such arrangements should be secured that, by classes or otherwise, the presence of the students on the spot might be certified at the given hour, independently of the chapel service.

On the other hand, one is easily satisfied that the attendance should be universal, and should be required; and also that entire order and a decorous deportment should be positively enforced under strict sanctions. These are indispensable conditions of any proper effect of the service, whether on the devoutly disposed or the reckless. Moreover, the reasons for them are plain, and find a substantiating authority in every human breast. Let the compulsion be exercised in a kind spirit, and be patiently explained. The reverence that demands it should be evident in the officer's own soul and bearing. Only, behind the reasonable persuasion — a silent, retiring, but ever-present force — should stand the imperative figure of law, always in abeyance, but always there. And above all, as just urged, let not the *cause* of this compulsion be mixed up with a secular regulation, but depend on its own inherent rectitude and conformity with the Divine Will. The student is to understand that he must come; but then this "must"

has nothing to do with the local policy. It is the combined dictate of revelation, of history, of human want and welfare, and of the ripest judgment of the best men. So an external order *must* be maintained. The intrinsic right of the matter is satisfied in no other way. Disturbance, levity, whispering, the furtive use of a book or pencil, a slouched dress, or a lounging attitude, should all be prohibited at every cost. If the pupil pleads that his heart is not in the service, and that an outside compliance is an insincerity, the fallacy can easily be shown him. The rule comes to aid his deficiency, and disposes everything to facilitate an interested participation. Besides, there are others close by who are really and thoughtfully worshipping, entitled to decorous surroundings. There is not the least hostility to free and cordial devotions in such regulations. Every sensible man knows that his strongest and happiest and healthiest labors are braced up and kept in place by law. Every transition from term-time to vacation, or from professional tasks to purely voluntary ones, illustrates that. As we lately heard one of our most faithful and unremitting scientific minds, — one where we should have hardly suspected the existence of any such reliance, express it, — "Our most spontaneous studies have to be subjected to some form of constraint." We get our freedom under a yoke. Almost every busy man who would acquire an extra language must put himself in bondage to a clock or a door-bell, till habit takes the place of the private teacher. The spiritual motions of man are no exception to this peculiarity of his constitution. They are not discredited by being regulated. Besides, the fundamental idea of a college or a school is that its members are "under tutors and governors;" and the success of every part of the educational process depends on the forming hand of law. Here, then, seems to be the true principle: the secular discipline of an institution has no right to subordinate the devotions to itself, nor to use them for its purposes; but those devotions demand a rational and gracious discipline of their own, in keeping with their dignity, and precise enough for their external protection.

Though perfect order, or the nearest possible approximation to it, ought to be insisted on, after the form of the exercise is determined, we hold that Christian pains should be taken to remove every burdensome element and circumstance pertaining to it. A principal one is often found in an unseasonable hour. The lessons and lectures of college, especially when the numbers of students are large, require a long day. It is a common impression that the day should begin with public prayers. This often brings that service so early that the prayer-bell acts as a wrench to pull the reluctant attendants out of

their beds. This is laying upon a duty, which needs every accessory to make it agreeable and attractive, a foreign and extrinsic load, giving it a bad reputation. During our own college course, rooming nearly half a mile from the chapel, we attended prayers, through the whole winter, at six o'clock, — both that duty and a succeeding recitation of an hour being performed by candle-light. The hardship was not at all too great for a vigorous training, and we never got an absence-mark. But, taking the habits of the people as they are, and especially of the more luxurious classes, this hour, or anything like it, would be accounted barbarous and cruel; and therefore we should consider it inexpedient. We account it an irreverence to bring inevitable and superfluous dislike on any worship. Morning prayers should be held at an hour when every healthy student may be reasonably expected to be up and dressed. Otherwise, a habit of feeling and of speaking is gradually engendered incompatible with due veneration.

In Harvard University the experiment has been tried, within a year or two, of assembling for morning prayers after breakfast, and indeed at two or three different times, in the first part of the day. The result, on the whole, has been favorable to making the prayers the first exercise, before breakfast; and this appears to be the preference of the students themselves, both on the score of natural fitness and personal convenience. The subject justifies an extensive comparison of different judgments and experiences.

At Harvard, at Brown, and perhaps at other institutions, the custom of an evening service has been suspended. It was thought advisable to concentrate the interest on one daily assembling for prayers. There were various reasons. The appointments of the buildings generally require that, if held at all, that exercise should come at night-fall, and not at the more intrinsically suitable time of retiring to rest. But, during the winter, night-fall comes in the midst of the day's work. At all seasons, that part of the day is commonly appropriated to out-of-door exercise, and by many to distant walks. Frequently the students are engaged, in large companies, in their noisiest and most exciting sports. From these stirring and jovial games, altogether proper and wholesome in their place, the tide of animal spirits running at its height, a stroke of the bell summons them suddenly to a reverential homage of their Maker. It is not in human nature to make that quick transition with entire dignity, and to the honor of the homage. At any rate, it is observable enough that the evening worship is far less impressive and edifying than the morning. From these and other causes, the change has been instituted, and, so far as we are informed, with such manifest and

unequivocal advantage, that the officers in these colleges would be slow to return to the former usage. But here again a longer experience must finally decide.

This seems to us quite clear, that whatever sacrifices of comfort, or effort of the will, this attendance may demand, the sacrifices and the effort ought to be borne by the board of government and instruction along with the pupils. With a few allowances, the prayers are indeed just as important for the one class as the other. If the officers are absent, it is at least natural that the pupils should tacitly ask why *they* are obliged to be present. The great law of voluntary self-denial comes into action here, as in so many of the relations of teachers to their scholars. Say what we will about universal principles, the ethics of a college and a school are peculiar. They exempt from no general duty, but they impose special and local ones of their own. The great universal principle is to do the most good in all circumstances. So sensitive are the moral sympathies of these seminaries, that a conscientious, high-principled Christian teacher will put away from him many an indulgence otherwise harmless, and cheerfully take up many a task otherwise needless, solely from a reference to the moral purity of those under his care, and in deference to that grand ethical law so nobly interpreted by Paul in the fourteenth chapter to the Romans. We are persuaded that very much of the present disaffection in these institutions at the exacted attendance would gradually disappear, if it were seen that the officers all regularly came of their own accord. Nor should they come merely to use an oversight of the under-graduates. That may be done incidentally. The prime purpose should be to engage honestly in the worship, to offer praise and supplication to the Lord of life, to learn that august lesson of faith and love toward Him, of whom "day unto day uttereth speech, and night unto night showeth knowledge," which is just as necessary for the strong and the wise, as for the weak and simple.

We come back from the details of method,— none of which can be insignificant where the end is so high,— to the spiritual forces involved, and the infinite object contemplated. God, who alone is true, has promised that he will hear the prayers of his people, and has conditioned the bestowment of his richest blessings on their being sought in singleness of heart. The history of our country is all bright with evidences how he watches over the nurseries of a pure learning, and from the very beginning has turned the seats of Christian education into fountains to gladden the wilderness and the city of God. "Such prayers as Dr. Dwight poured forth in the Chapel of Yale College, when, in the agony of his spirit, he wrestled with God, as well as struggled

with men, for the victory over error and sin, never fall powerless on the ear of man or God, never fail to carry the worshippers into the very presence of their Maker." Nor was it ever plainer than now, that the healing branch of devotion needs to be thrown into the head waters of popular intelligence to sweeten their bitterness. Intellectual pride, a cultured self-will, unbelieving science, literary conceit, all lift their disgusting signals to show us that the knowledge of this world is not to be mistaken for the wisdom of Heaven. Knowledge is power, but what kind of power? A power of beneficence, or a power of destruction? That depends on other questions. For what is knowledge sought? To whom is it consecrated? Into whose name is it baptized? Let us save ourselves, if we may, from a brain developed only to be demonized, and from the delusion of mastering the secrets of nature only to be brought into a poor bondage to ambition. Knowledge is not sufficient of itself. Now, as of old, and forever, it must wait reverently on the Unseen, and kneel in lowly faith. Men may talk of the pure and passionless air of scientific research, of the certainties of scientific deduction, of the absoluteness of scientific conclusions, decrying, at the same time, the strifes, and altercations, and fluctuations of theology, as if thereby to affirm some independence of thought on God, or some superiority of the understanding over the heart. It is an impertinent comparison and an insane jealousy. Let them explore their own fallacies. Let them not confound theology and religion, nor the processes of science with its ultimate results. Let them read the biographies of scholars, and the history of thought; let them trace the course of the principal scientific discoveries within the last dozen years; let them acquaint themselves with the quarrels of authors, and the disputes of schools, and the gossip of cliques. They will soon find that petty contentions are not confined to ecclesiastical councils, though Heaven knows *their* air is too foul and vexed with them. They will see that everywhere the mind wants the guidance of God's Spirit; that education without piety is only a multiplying of the means of mischief; and that Christ came into the world as much to teach scholars humility, as to comfort the illiterate. No: those who say such things are not the strong friends of science, nor the true advocates of her dignity, but novitiates in her sacred tuition, and flippant champions whom she disowns. Knowledge and faith have one interest, one aim, one God and Saviour to confess and serve; and therefore over every step in education, every lesson in learning, every day of the student's tried and tempted life, should be spread the hallowing peace and the saving benediction of prayer.

Deep down in their souls students feel this. At least in their better moments they realize it. Even the most impulsive and inconsiderate have some dim, instinctive witnessing within them that it is good to call on God. Many an earnest believer has felt his first renewing convictions, the first strong grasp of the hand of remorse, the first touch of penitential sorrow, amidst these apparently neglected entreaties. The sure arrow from the Divine Word has there reached many a haughty and obdurate heart. The silent struggle in a young man's exposed nature, between early principle and fierce solicitation, has often received there the blessed help that secured the victory to virtue. Some germ of holy resolution has found nourishment, and light and air to grow in. Some half-formed plan of dissipation or vicious amusement has there risen up in its hideous aspect, and been forever dashed to the earth and broken to pieces. Some yielding rectitude or chastity has been reïssured and set on its blameless way again in gratitude and joy. Images of home have come before the closed eyes. The voices of mother and sister, of the affectionate pastor that childhood had revered, and of many a saint on earth or angel in heaven beside, have seemed to speak and plead in the simple, fervent petitions. Could the secrets hid in the hearts of educated men be revealed, we have no doubt it would be seen how large a part the college prayers bore in the initiation or the reïnvigorating of their best designs. Many a man has there, in silence, said honestly and faithfully to his own conscience, "To-day I shall live more righteously; meanness and sin shall be more hateful to me; generosity and goodness more lovely;" and all the day has answered to the pledge. Admonitions, that would have been rejected if offered from man to man, work their effectual plea in the indirect persuasion of a request to the Father of Lights. Noble friendships between young hearts have felt themselves more disinterested and more secure for the holy appeal to the Source of Love. The noble claims of humanity, making each man feel himself a brother in the mighty fraternity, girding him to labor and suffer for his kind as the only worthy calling of his scholarly life, have there pressed their way into the heart of hearts, through a clause of that Bible that speaks to the rich and the poor, or a supplication for sage and slave alike, for bond and free, for the heathen and the helpless. Eminent servants of the best causes, disinterested patriots, preachers of Christ, missionaries to the ends of the earth, have taken there the first impulse that bore them on to their places of heroic action or martyr-like endurance, — faithful unto death, awaiting crowns of life.

Whatever appearances of neglect may attend the familiar repeti

tion of these holy occasions, therefore, there can be no apology for discouragement. As in all coöperation with the vast, slow achievements of the Providence that predestines a spiritual harvest from every seed sown in faith, there must be an unhesitating continuance in well doing, and a patient waiting, for results, on Him who is so unspeakably patient with us. Only let the prayers be real prayers; such asking as humbly refers each entreaty to the Supreme, Unerring Will, yet with the fearless trust that He who hears in love will answer in wisdom; let the things prayed for be such things as those then and there assembled most heartily desire, rather than such things as precedent or old tradition have decided it is merely proper to implore; let Christian care and painstaking be applied to the arrangements of the company and the parts of the service; let the intercessions of thousands of sympathizing and anxious homes throughout the land arise in unison; and then there can be no ground of doubt that God will accept our offerings, sanctify our scholarship, lead more of our young men to bring their gifts and attainments to the Saviour's ministry, uniting a broad culture with high aspirations and a profound faith in the structure of the civilization that is to be. Then many a man who enters college only with a vague purpose to profit or to please himself, while there shall listen to a higher call, and become a cheerful servant of the King of kings. Then right-minded, pure-hearted youths will not find their collegiate course a perversion from integrity, nor a snare to principle, nor a ruin of honorable hopes, but a confirmation of every worthy desire, and a progress in all manly living. Then the thoughts of parents will not turn to these institutions with regret, with maledictions, or with shame, but with confidence, gratitude and joy. Then the Republic will not be disappointed when she looks to the University as "the light of her eyes and the right arm of her strength." Then the most powerful agency that can be conceived will be inaugurated to make our literature healthful, earnest, humane. And then, not only by the motto of a seal, and not only in the pious hopes of its founders, but in the daily spirit of its administration, and in the characters of its graduates, shall each college be dedicated to Christ and the church.

III. PUBLIC INSTRUCTION IN SARDINIA.

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(Continued from page 530, Vol. III.)

TECHNICAL SCHOOLS.—As primary schools are intended to give to all the citizens a general knowledge, such as is necessary to man without distinction of class or difference of calling, secondary instruction has for its object the education and development of more special intellectual capacities, and the preparation of its students for different scientific or artistic professions. The secondary classical schools prepare youth for the professions of the university, while the technical education proposes to direct the students through other courses which find no opening in the university. This instruction, considered as a general system, is of a recent origin; having been organized only since 1848. In that year, when the government founded the national colleges, there were annexed to these institutions technical courses, which were afterward established in connection with many other schools. The course of these schools is of five years, and the students are admitted to it after they have passed the full primary course. The programme taught in these courses, embraces religion, Italian literature, history and geography, elementary and superior mathematics, mechanics, physical science, chemistry, statistics, political economy, commercial law, commercial arithmetic, book-keeping, drawing, both ornamental and of machines, natural history, French, German, English languages, drawing of figures, singing and playing of pianoforte, declamatory art, gymnastics, military exercises, fencing, dancing, calligraphy. There are about fifteen of these schools more or less complete; the best of which are connected with some of the national or royal colleges. The number of the professors of the technical courses varies from ten to twenty, according to the less or greater development of the programme.

Besides these courses there exists in Turin a ROYAL TECHNICAL INSTITUTE, with the following classes: 1st, mechanics applied to arts and industry. 2d, chemistry, applied; 3d, geometry, applied; 4th, agricultural chemistry. 5th, agriculture. 6th, forestry. 7th, descriptive geometry and geometrical drawing. A professor of the institute is entrusted with the direction of the school, and he is assisted by a council of administration especially appointed by the government. The professors are requested to expound in their courses the theoretical principles of the science, over the teaching of which they preside, and to make the applications, the best adapted

to the objects. Besides this ordinary instruction, they are directed to deliver one or more special courses on some particular branch of application, and to organize practical exercises adapted to the nature of their lectures. Each professor is obliged to deliver at least two lectures a week, which must be illustrated by demonstrations and experiments. The institute possesses for this object a laboratory, and various collections of scientific apparatus, drawings, models, engines, and natural productions. The lectures are public and free, and no examination is required from the students, in order to be admitted to them. The students, however, after having completed the course of their instruction, have the right to present themselves for the examination, and to receive a certificate from the examiners. The course of the institute is opened in the middle of November, and ends with the month of June.

There are also in Turin THREE SPECIAL COURSES, directed according to the programme of the national colleges, two PUBLIC TECHNICAL COMMERCIAL SCHOOLS, and a FREE SCHOOL OF DRAWING APPLIED TO ARTS AND INDUSTRY. In the same city we find a SCHOOL OF ELECTRIC TELEGRAPHING, a SCHOOL OF GYMNASTICS connected with the association for the progress of gymnastic exercises, and a VETERINARY SCHOOL supported by the government and directed by three professors and two assistants. The pupils are obliged to attend most of the lectures delivered in the ROYAL TECHNICAL INSTITUTE, in addition to the instruction which they receive in the veterinary school.

Genoa can boast of a TECHNICAL SCHOOL in which are taught chemistry, mechanics, and geometry, applied to arts, geometry, arithmetic and trigonometry applied to navigation, navigation, naval construction, and design. There is also a TECHNICAL COURSE connected with its national college, and a SCHOOL OF COMMERCE; besides a ROYAL SCHOOL OF MARINES, in which are given courses of mechanics, of astronomy and hydrography applied to navigation, of elementary, analytic and descriptive geometry, of infinitesimal calculus, algebra, plain and spherical trigonometry, navigation, chemical and physical sciences, naval construction, fortification, artillery and military art, history, physical and political statistics, and commercial geometry. The pupils are also taught Italian literature, the English and French languages, drawing, calligraphy, fencing, and dancing. In the summer of each year the pupils make a voyage of instruction in ships belonging to the State. The institution is conducted by sixteen officers and professors, and has about sixty pupils. In Genoa, there is in operation a FREE AND MUNICIPAL INSTITUTION OF MUSIC, for both sexes, with the following course of instruction: musical composition, singing, piano-forte, violin, double bass, violoncello, clarinet, flute, cornet, and other instruments. It is directed by thirteen professors.

Chambery has a SPECIAL COURSE connected with its national college, and TECHNICAL SCHOOLS of mechanics and chemistry applied to arts. Nice possesses also a SPECIAL COURSE in its national college, a SCHOOL OF COMMERCE supported by a private association and by subsidies from the government and the municipality, and a FREE SCHOOL OF NAVIGATION.

We find in the other principal cities technical schools, more or less extensive, according to their means and specialities, and which are all free and supported either by the government, or by the municipalities, or by private associations. Among those we may mention as the most prominent:

The School of Agriculture, of Motte-Servollex, in Savoy.

The School of Watchmaking, of Cluses, in Savoy.

The School of Commerce, of Bonneville, in Savoy.

The School of Arts and Trades, of Biella, connected with the Association for the advancement of arts, trade, and agriculture of that province.

The School of Ornament and Architecture of Chiavari, connected with the Economical Association of that city.

Bellini's Institution of Arts and Trade, at Novara.

The School of Land Surveying and the School for Artisans, of Casale.

The School of Design, of Varallo.

The College for the Children of officers and soldiers, at Racconiggi.

The Military School of Cavalry, of Pinerolo.

The School of Pontoneers, at Casale.

The School of Navigation of Villafranca.

The Ecclesiastical Seminaries belong to the system of special instruction, as their object consists in training students of Divinity, and candidates for the priesthood. The pupils are boarded and lodged in these institutions, for which either they pay a moderate price, or are entirely exempted from any payment, according to the means of the seminaries, and the pleasure of the bishops. The entire course of the seminary lasts seven years, and embraces courses of philosophy, and of theology. The course of philosophy lasts two years, and does not differ from the collegiate course. Theology is divided into two main parts, dogmatic and moral. In the best institutions there is also a course of canon law, ecclesiastical history, liturgy and sacred oratory. They own property and support themselves. The government, however, pays a salary to one of the professors of theology, whenever the bishops submit the appointment to its approbation, admit in their establishments the treatises prescribed by the university, and allow them to be inspected by the official inspectors. There are about forty-four of these seminaries, most of which have of late refused to submit to any control from the government.

Schools of the Waldenses.—Though the Waldenses enjoy the full right of availing themselves of public instruction, under the direction of the government, yet in those places where they constitute the majority of the population, they have schools of their own. Such is Trinity College, established at Torre, where pupils are taught theology, philosophy, and belles-lettres, and with which three elementary schools are connected. We find also primary schools in all the parishes of the Waldenses in the valleys of Lucerne, Perosa, St. Martin, etc. They have also a Superior School for Girls, at Torre, and some Latin Schools—all of which are conducted according to the programme of the state.

The government of the Technical Courses and Schools, which are

supported by the government itself, belongs to the general Council of elementary instruction, the organization of which we have described elsewhere. The ROYAL TECHNICAL INSTITUTE, however, is directed by a special council of administration, under the immediate direction of the minister. In regard to the others, they are under special administrations, over which the government retains a right of control and inspection.

In connection with the public technical or special schools we may glance at a number of provident and reformatory institutions which, though they do not belong strictly to the system of public instruction, contribute largely to the education and general improvement of the capital.

ROYAL HOUSE OF VIRTUE, (*R. Albergo di Virtu*,) founded in 1587, in which 120 poor boys are gratuitously lodged and supported, instructed and trained to some art, such as the manufacture of silk and woolen goods, ribbons, laces, stockings, or to some mechanical trade.

COLLEGE OF YOUNG ARTISANS, (*Collegio degli Artigianelli*,) recently founded by private benevolence for the purpose of sheltering, educating and training poor and abandoned boys to some mechanical or agricultural pursuit.

ROYAL MENDICANT ASYLUM, (*R. Ricovero di Mendicita*,) founded in 1840, for persons found begging in the streets, who are provided for, and set to work—they enjoy a part of the proceeds of their labor.

ROYAL COLLEGE OF PROVIDENCE accommodates 140 respectable young ladies, and gives them instruction in every kind of feminine employment.

HOUSES OF REFUGE, (*Il Soccorso e il Deposito*,) where the daughters of respectable impoverished families have a home, and are educated and trained to different kinds of work.

ASYLUM OF THE ROSINE, (*Il Ritiro delle Rosine*,) where 330 poor girls are boarded and lodged, and provided with instruction and employment.

ASYLUM OF THE SAPELLINE, founded in 1822, as a home for young girls who are morally endangered, where they are instructed and trained to feminine occupations.

HOME FOR ORPHAN GIRLS, (*Monasterio delle Povere Orfane*,) founded in 1550.

ROYAL ASYLUM for daughters of military officers. This institution accommodates about seventy inmates, with a home education.

INSTITUTION FOR VAGRANTS, founded in 1776. It gives employment and instruction to the extreme poor and their children, and bestows a small dowry on the girls when they marry. The instruction is given by volunteers, gentlemen and ladies of high social standing.

THE LITTLE HOME OF DIVINE PROVIDENCE, (*Piccola Casa della Divina Providenza*,) founded in 1829, as a home for infirm, sick, and poor people of every age. It has accommodations for 1200 inmates, who are classified according to their condition in the *Orphan Asylum*, the *Infant Schools*, (of which there are five,) *School for the Deaf-mutes*, the *Hospital*, *&c.* The workshops are well appointed and managed. The carpets, laces, and wool-tissues manufactured here are in great

demand, and have twice received the golden medal at the national industrial exhibition. There is also a *School for Music*, in which pupils are trained for the Royal Chapel.

Royal Normal School for Deaf-mutes, founded in 1834. It receives pupils of both sexes between the age of 10 and 16 years, who pay a small sum for their board and lodging. After they have received a sufficient instruction, the boys are trained to the practice of some trade in some workshops of the city, and board in the establishment during the five or six years of their apprenticeship,—the girls are instructed in all kinds of feminine occupation. Day pupils are also admitted to the school of the institution, without any charges. The city of Turin supports at its own expense some pupils in the institution. Other provinces follow this example. This institution trains teachers for similar schools in other parts of the kingdom.

Other cities of the kingdom abound in similar institutions. Many of them are under the care of religious sisterhoods and voluntary associations, and are supported by endowments and annual contributions.

Among the technical or special schools may be mentioned the Correctional and Reformatory School for young *detenues*, two miles out of Turin. It is organized and managed substantially after the plan of Parkhurst Prison in England, and the State Reform School at Westborough, Mass. There are over 300 inmates, divided into four sections, mostly employed in gardening and in mechanical trades closely associated with agriculture and common life, such as carpentering, tailoring, &c. The construction and internal management of this Reformatory has led to the improvement of the prisons and prison discipline of the kingdom generally. There is also at Turin a House of Correction, which is both a *Prison* and a *Hospital*, supported by the government for criminal and abandoned women; a *House of Charitable Refuge*, supported by private benevolence for the same class of women desirous of entering on a better life. Associated with these institutions there is a Patronage Society, to assist discharged inmates of the reformatory school in finding employment.

From this survey of institutions of secondary including special instruction, it is evident that the government of Sardinia is behind no European State in assisting the development of the industrial resources of the country, while it at the same time provides for universal elementary instruction, and the demands of higher learning and science. Quite recently the government has divided the technical or special schools into two classes:—the first having a course of three, and the second of two years; the last having two sections, one commercial and the other industrial, so as to meet the wants of different pupils, and different localities. The government also distributes an annual subsidy of seventy thousand francs among these schools, for the special benefit of the teachers.

The examination, which leads the pupils from the secondary schools to the university, is called the examination of *Magistero*, and constitutes the first degree on which the university bestows a diploma.

The diploma is given under the control and direction of the faculties

of letters and philosophy, and of physical and mathematical sciences; which are represented by special committees, each of which consists of three members, of whom one at least must be an ordinary professor of the faculty. The other members are annually appointed by the minister of public instruction, selected from the doctors of the same faculties. These committees in the university of Turin can not be less than three for each subject of examination. The examination consists of three different subjects; two scientific and one literary, which embrace all the subjects of the secondary instruction of the State colleges. The first scientific examination embraces questions in logic, metaphysics, arithmetic, algebra, and geometry; the second, questions in ethics, and physical science, which are drawn by lot from the prescribed programmes, and answered orally. The literary examination is written and oral. The written consists of a Latin and an Italian composition, on two themes drawn by lot from six, which have been proposed by the president of the faculty. For each of these compositions three hours are allowed to the pupils, and in this time they must write their exercises under the inspection of an assistant, and without aid of any books, except the dictionaries. The oral examination lasts one hour, and is on the compositions and on questions suggested by them, on the interpretation of Latin and Italian writers, and on questions on history, according to the programme. The oral examinations are made with open doors, and the public can attend them. These examinations take place twice during the year; viz.: forty days before the closing of the university, and in the day after its opening, for the succeeding twenty days. The programmes of the examinations are in their substance the same as of the instruction, but are so arranged as to embrace it in twenty-five numbers, each of which comprehends many questions. These programmes are upon the following subjects: 1, logic and metaphysics; 2, ethics; 3, arithmetic, algebra, and geometry; 4, physical science; 5, ancient history; 6, modern history; 7, geography.

The Latin authors studied in the Secondary Schools, and on which an examination is held for the degree of *Magistero* are,—

1. Cato—*De Re Rustica.* 2. Cicero—*Orationes Selectæ.* 3. Cicero—*Quæstiones Academicæ et Tusculanæ.* 4. Cicero—*De Natura Deorum.* 5. Cicero—*De Legibus et de Republica.* 6. Sallustius—*Bellum Catilinarium.* 7. Sallustius—*Bellum Jugurthinum.* 8. Livius—*Historiarum*, lib. 1, No. 3. 9. Livius—*Ex aliis Historiarum libris.* 10. Tacitus—*Annales*, lib. 1. *Historiæ*, lib. 1. 11. Tacitus—*Agricola. Germania.* 12. Plinius Secundus—*Epistolæ.* 13. Plautus—*Trinummus*, lib. 2. 14. Terentius—*Excerpta.* 15. Lucretius—*De Rerum Natura.* 16. Catullus—*Excerpta.* 17. Tibullus, et Propertius—*Excerpta.* 18. Virgilius—*Bucolica—Georgica.* 19. Virgilius—*Æneidos*, 6—12. 20. Virgilius—*Æneidos*, 1—6. 21. Horatius—*Carmina.* 22. Horatius—*Epodon—Satiræ.* 23. Horatius—*Epistola de Arte Poetica.* 24. Ovidius—*Metamorphoson*, 1—3. 25. Ovidius—*Excerpta, Heroidum—Fastorum—Tristium ex Ponto.*

The Italian writers are:

1. Dino Compagni—*Cronaca Fiorentina.* 2. G. Boccaccio—*Decamerone, Vita di Dante, Fiammetta, and Filocopo.* 3. A. Pandolfini—*Del buon governo della famiglia.* 4. N. Machiavelli—*Storie Fiorentine, Discorsi sulla prima Deca.* 5. P. Bembo—*Letters, Storie Veneziane.* 6. F. Guicciardini—*Storia d' Italia.* 7. A. Firenzuola—*Narrazioni tratte dalle sue opere.* 8. A. Caro. *Lettere.* 9. Della Casa. 10. G. Galilei—*Opere.* 11. F. Redi—*Lettre.* 12. P. Segneri—*Descrizioni e Narrazioni.* 13, 14, 15. Dante Alighieri—*Divina Commedia.* 16. F. Petrarca—*Sonetti, Canzoni Trionfo della Morte.* 17. A. Poliziano—*Poesie Liriche, Orfeo, Stanze.* 18. L. Ariosto—*Orlando Furioso.* 19. F. Berni—*Orlando Innamorato.* 20. F. Tasso—*Gerusalemme liberata.* 21. G

Chiabrera—*Canzoni*; A. Guidi—*La Fortuna*. 22. G. Gozzi—*Sermoni*; G. Parini—*Liriche, Giorni*. 23. V. Alfieri—*Saul, Polinice, Oreste*. 24. U. Foscolo—*I Sepolcri*. 25. V. Monti—*La bellezza dell'Universo. Liriche*.

III. SUPERIOR INSTRUCTION.

UNIVERSITIES.—There are in the Kingdom four universities; in Turin, Genoa, Cagliari and Sassari, the two latter in the island of Sardinia. We shall speak only of the university of Turin, that being the most complete in its organization, the highest in scope of instruction, the most important institution of the country, and the model of all the others. Indeed the university of Turin may claim a prominent place among the institutions of Europe, and in Italy takes rank with those of Pavia, Padua, Pisa, and Bologna.

The university of Turin was founded in 1405 by Louis of Savoy, Prince of Piedmont. In 1412 it obtained its rights and privileges from the Emperor Sigismond, and in 1424 Amedeus VIII. organized a Council of direction of the university, composed of the governor-general, and three other members, who were called Reformers, (*Riformatori.*) Some years after it was transferred to Chieri, on account of the wars of that time; then again, from Chieri to Savigliano, and in 1436 restored to Turin. Emmanuel Philibert in 1516 gave new life to the institution, reformed the council of direction, and established separate faculties. Still further improvements were made by Victor Amedeus II. to whom Piedmont owes in no small degree its present welfare and strength. He built the magnificent palace of the university, called to it the illustrious professors from other parts of Italy, from France and other countries, founded the college of the provinces for the support and education of poor and talented pupils, and established the botanic garden. Charles Emmanuel III. was not less eager in promoting the prosperity of the institution, promulgating a code of academic laws, which, for its time, was the most complete in Europe; and which was modified and improved by Charles Albert, who created many chairs, built the magnificent new anatomic theater, enriched the botanic garden and museums, and founded a new era of national independence, freedom, and of scientific glory in the annals of public instruction in Sardinia. His son, the present king Victor Emmanuel II. has shown himself a worthy successor of the founder of the free institutions of the country, by placing Sardinia at the head of the national party of Italy, sustaining before European diplomacy the rights and the independence of the nation, emancipating the country from the relics of ancient despotism, and maintaining with religious affection the political constitution of the country, and improving in every way the material as well as the educational condition of the people; and especially in increasing the splendor and raising the standing of the university of the capital of his kingdom.

Many celebrated scholars have from the beginning given honor to its name, among whom we may mention CARA, who lived in the 15th century, a lawyer, as well as a Latin scholar of great celebrity, who attracted to his lectures distinguished audiences, not only from every part of

Italy, but even from France, Spain, and Germany. In the 16th century CUJACIUS, that miracle of legal erudition, left Toulouse, his native country, and repaired to this university. In the same century and in the same institution, Argentieri taught medical science, and Benedetti mathematical astronomy. THESAURO in the 17th century was celebrated among Latin scholars; in the 18th, the university could boast of a GERDIL in moral philosophy, of ALCASIO and BONO in jurisprudence, of CIGNA in anatomy and physiology, of BERTRANDI, BRUGNONE and PENCHIENATI in Surgery, of DONATI, the botanist, who by his extensive travels in Asia, enriched the garden of the university with many precious treasures; of ALLIONI, who proposed a new classification of the vegetable kingdom, of MICHELLOTTI, celebrated in hydraulics, and of BECCARIA who divided with Franklin the laurels of the discoveries of electricity. In the present century, BARDI acquired an European fame for his high attainments in Hebrew literature and in sacred history; ALARDI, GRIDIS, and BESSONE were celebrated in jurisprudence; GIULIO discovered muscles in plants; ROLANDO developed a new theory of the structure of the brain; BALBI followed with devoted zeal the study of botany; VASSALLI EANDI showed himself a worthy pupil of Beccaria; BONELLI and BORSON enriched the zoölogic and mineralogic museums; BONVICINO and GIOBERT acquired great reputation in chemistry, and BIDONE in mathematics; finally the names of LAGRANGE, ALFIERI, BERARDI, CHARLES BOTTA, GIOBERTI, CÆSAR BALBO, SCIOLLA, TARDITI, BOUCHERON, &c., who either received their scientific education at the university, or presided over some branches of its instruction, would be sufficient to raise that institution to an equal standing with the most celebrated universities of Europe. We do not speak of the living professors, among whom are many names of great repute, in theology, jurisprudence, medical and surgical science, philosophy and letters, physics and mathematics.

The palace of the university built in 1714, according to the design of RICCA, stands on the widest and most beautiful thoroughfare of the city, the great street of the Po, which is adorned on both sides with wide and lofty arcades, ending at each extremity with a wide square, looking on one side toward the old castle, which stands alone in the middle of its square, and on the other to the picturesque hills, which overlook the city. The palace has within a court surrounded by arcades, divided by columns which support above another gallery of the same style, as the arcades below. In the walls of these are many Roman inscriptions, statues, and bas-reliefs, discovered in Piedmont, and which have been described by Scipione Maffei and other celebrated antiquaries. On the arcades above are a marble group representing fame chaining time, and four urns representing the seasons, which were presented to the university by Victor Emmanuel I. The imposing staircase is adorned with marble vases, and ornamented with sculpturing. All the interior of the University is grand and magnificent, and admirably fitted for its objects.

The University consists of five faculties,—THEOLOGY, JURISPRUDENCE, MEDICINE AND SURGERY, BELLES-LETTRES AND PHILOSOPHY, PHYSICAL AND

MATHEMATICAL SCIENCES. Each faculty is composed of the professors, and of the Collegiate Doctors, and it is represented by a Council which is formed of the president of the faculty, of three professors, and of two doctors, all of whom are elected by ballot, by the members of the faculty itself. The faculty of belles-lettres and philosophy is divided into two classes, one of belles-lettres and one of philosophy. The faculty of physical and mathematical sciences is also divided into two classes, of physical and mathematic science.

The Councils of the faculties have the immediate direction of the instruction, which belongs to each of them: over these presided until lately a Council of the university, to which the general administration and direction of the institution belonged. This council was composed of eight members; the president was appointed by the government, of the other seven counselors, five were elected from five lists; each of three professors, which were made by ballot by each faculty, and the two others were selected by the government, among the most distinguished men either in the scientific or literary department. This council was entrusted with the execution of the scholastic laws and with the direction and advancement of the instruction of the university. A new law relating to the administration of public instruction, which was a few months ago adopted by the Parliament, modified this organization, and we shall speak of it hereafter. There is also a rector of the university appointed from among the professors by the government, for a term of three years.

The faculties have a determined number of collegiate doctorships, and when one of these is vacant, an examination is opened in order to fill it. Doctors who received the diploma of the faculty can alone present themselves to this examination, but not before two years of doctorship. The examination consists of a written dissertation upon a subject drawn by lot, and of a public extemporary lecture; the candidate who in the contest, receives the approbation of the faculty, before being declared a collegiate doctor, is obliged to sustain a satisfactory public discussion on some of his positions, which he is required to publish as an exposition of the particular science. The collegiate doctors are, in connection with the professors, the examiners of the candidates for the memberships of the colleges, as well as of the students who apply for the diploma of their faculty. They are also the members of the committees appointed for the examination of students applying for admission to the university.

The professors are appointed by the government, after being proposed by the supreme council of instruction; as a general rule they are chosen among the collegiate doctors, though in some exceptional cases men of high scientific reputation, who do not belong to the university, may receive the appointment.

The colleges of the faculties at present contain as follows: 1st, College of theology, twenty-four doctors; 2d, of jurisprudence, twenty-two; 3d, of medicine and surgery, twenty-nine; 4th, of belles-lettres and philosophy, *a*, class of belles-lettres, ten, *b*, class of philosophy, seven; 5th,

of physical and mathematical sciences, *a*, class of physical sciences, ten, *b*, class of mathematical sciences, nine.

Some of these doctors are appointed by the government, as extraordinary professors of the faculty, whose duty is to take place of the ordinary professors, when prevented from lecturing or examining.

There are also attached to the university, private teachers who are called *Ripetitori*, from whom the students can receive private instruction on the course. These teachers are licensed by the council of the university, after being proposed by the councils of the faculties; the students, however, are not obliged to follow these courses, and should they choose to follow them, they are by no means exempted from the course of the university, which is the only one recognized as the necessary condition of admission to the examinations and to the doctorships. The private courses are paid by the students who wish to follow them, but the courses of the university, as well as of the colleges, are entirely free. The students, however, are obliged to pay to the public treasure a fee for their examination, which varies according to the different faculties. From the payment of these fees all pupils are exempted, who prove the inability of their parents to pay them.

In order to be admitted to the course of a faculty, it is necessary for the students to present the certificate of having completed all the secondary courses, including that of philosophy; another, of having passed satisfactory all the examinations of *magisterio*. They then declare the faculty, of which they intend to follow the courses; after which they are obliged to attend the lectures prescribed for those courses, to obtain every quarter a certificate of their attendance from each professor, and to pass an annual examination upon the subjects of the programme.

The following are the courses connected with each faculty; to each course is appointed a professor.

Faculty of Theology. 1st, Biblical theology; 2d, Bible and the elements of Hebrew; 3d, Ecclesiastical History; 4th, Dogmatic theology; 5th, Speculative theology; 6th, Sacraments; 7th, Moral theology; 8th, Art of preaching. The course continues through five years, and the subjects are arranged in the following order: 1*st year*, Biblical and Dogmatical theology; 2*d and* 3*d years*, Moral theology, Speculative theology, and Sacraments; 4*th and* 5*th years*, Moral theology, Speculative theology, Sacraments, and Bible. The students, who propose to contend for the three prizes established by the government for the best written solution of theological questions, attend the lectures of an additional course, which is of two years, and embraces ecclesiastical history, the art of preaching, elements of Hebrew, and exegesis of the Bible.

The bishops have the right to establish theological schools in their seminaries; but the instruction received in those seminaries can not give to the students the privilege of presenting themselves to the examination for receiving the Doctorship of Divinity from the university, unless the professors of theology have been appointed by the government, and unless these professors follow the programmes and the general regulations of the

university. In this case the professors of the seminaries receive their salary from the government. The diploma of doctorship in divinity is a necessary condition for obtaining the incumbency of many ecclesiastical benefices and employments, to which the government has the right of nomination, and as this diploma can be only granted by the university, it follows that a great part of the clergy are obliged to pass through this course in one of the universities of the state. During late years, however, the church having entered into an open opposition to the state, on account of some reforms introduced into the political institutions of the country, the bishops became reluctant to allow the students of divinity to follow the course of the university, so that from recent statistics this faculty appears almost deserted.

The following is the catalogue of the professors of the theological faculty of the university of Turin, with the subjects of their lectures for the scholastic year, 1856–7. (November—June.)

PARATO FELICE, member of the Council of the University, in Moral Theology, will lecture *on human actions, on moral law and on the laws of the Decalogue and of the Church*, at 9 o'clock, every day.

SERAFINO ANGELO, in Speculative Theology, will lecture *on God and his attributes*, at 10 o'clock, every day.

GHIRINGHELLO GIUSEPPE, member of the Supreme Council of public instruction, in the Holy Bible, will lecture *on Acts of the Apostles, the Epistles, and Revelations*, at 3 o clock, until April; then at half past three, every day. He will also teach *Hebrew and Biblical Exegesis*, every day at 4 o'clock, until April, then at half past four.

BANAUDI CASIMIRO, will teach *Biblical Theology*, at 10 o'clock, every day.

SAVIO CARLO LUIGI will teach *Dogmatical Theology*, at 11 o'clock, every day.

BARONE FRANCESCO, in Ecclesiastical History, will lecture *on the History of the Church from Constantine to Charlemagne*, on Mondays, Wednesdays, and Fridays, at 12 o'clock.

N. N. will teach *the Art of preaching*, on Tuesdays, Thursdays, and Saturdays, at 12 o'clock.

N. N. in Speculative Theology; will lecture *on Sacraments in general, and on Baptism and on Confirmation*, at 11 o'clock, every day.

FACULTY OF JURISPRUDENCE.—The course of this faculty extends through five years, and consists of the following thirteen chairs. 1st, History of Jurisprudence; 2d, Institutions of Roman Law; 3d, Ecclesiastical Law; 4th, Roman Law; 5th, Civil Law; 6th, Penal Law; 7th, Political Economy; 8th, Constitutional Law; 9th, Commercial Law; 10th, Judiciary Law and Theory of Evidences; 11th, Administrative Law; 12th, International Law; 13th, Philosophy of Jurisprudence. These subjects are divided through the course in this way: *1st year*, History of Jurisprudence, Institutions of Roman Law, Ecclesiastical Law. *2d year*, Ecclesiastical Law, Roman Law, Civil Law, Penal Law, Political Economy. *3d year*, Roman Law, Civil Law, Penal Law, Political Economy, and Constitutional Law. *4th year*, Roman Law, Civil Law, Constitutional Law, Commercial Law, Judiciary Law. *5th year*, Commercial Law, Judiciary Law, Administrative Law, International Law, Philosophy of Jurisprudence.

No one can obtain the title of lawyer, or practice the legal profession or plead any cause before any court of the country, or be appointed in any place of the judiciary department, without having received the diploma of Doctorship in this faculty. This diploma opens also the most part of the official employments, both in the executive and in the administra

tive departments, and gives a better chance for election to the legislative body.

In order to afford a better opportunity to the students of this faculty who reside in the most distant parts of the country, there is a school of jurisprudence in Chambery and in Nice for the students born in those provinces. The programme, however, of these schools does not exceed the subjects which are taught in the first year of the course, after which it is required of the students to continue their course at the university. Thus three professors deliver lectures in each of those schools, according to the programme of the university and under the direction of the faculty of Turin, and of the council of that university. In every city, besides, which is at the head of a provincial department, there is a school of *Civil and of Judiciary Law*, which prepares its students for the professions of public notaries and advocates. This course extends through two years; in the first of which they are taught the elements of civil law, in the second the judiciary law, in causes both civil and criminal.

The professor of the history of jurisprudence, after having given to his students the fundamental ideas which are necessary to understand this part of their course, commences with the origin of the Roman law and follows it through its decline at the fall of the empire; and treats of the different laws promulgated by the succeeding rulers, of the most useful principles of the feudal system, of the canonical law, of the contests between the civil and ecclesiastical authority, and of the statutes of the ancient commons, and pursues the genesis and the changes of our legislation to the present time. In the course of his history the professor is required to point out the sources of law, and the causes of progress of justice, and of other phases of jurisprudence.

The professors of the institutions of Roman law, and of Roman law itself, expound compendiously the parts of that law, which do not enter into Sardinian legislation, and dwell upon the other parts, which are the foundation of the law of the country.

In the first year of the course on ecclesiastical law, the lectures treat, 1st, of the church and its authority; 2d, of marriage. In the second year their subjects embrace the doctrine of ecclesiastical benefices. The study of penal code is divided into two parts, in the first of which the general theory is taught, in the second special applications to different offenses. In this last part the professor dwells especially upon offenses against public faith, and against the peace and property of families and individuals. The lectures on commercial law embrace all the parts of this law, and include the maritime law. The course of judiciary law is divided into two parts, accordingly as it refers to civil or criminal proceedings, and includes in both parts the theory of evidences.

We give here the catalogue of the professors of this faculty, and their programme for the present year:

Vacchino Francesco, in Commercial Law, will lecture on it, on Tuesdays, Thursdays, and Saturdays, at 10 o'clock.

NUITZ GIOVANNI NEPOMUCENO, member of the Council of the University, and Rector of the University, in Roman Law, will lecture *on Obligations*, Mondays, Wednesdays and Fridays, at 8 o'clock.

CESANO GASPARE, extraordinary member of the Supreme Council of instruction, in Civil Law, will lecture *on the Contract of Marriage, on subsequent rights in both parties, and on the contract of partnership*, Mondays, Wednesdays, and Fridays, at 10 o'clock.

PATERI ILARIO FILIBERTO, in Ecclesiastical Law, will lecture *on the Church, and on its authority, and on Marriage*, Tuesdays, Wednesdays, and Saturdays, at 8 o'clock.

ALBINI PIETRO, in the Philosophy of Jurisprudence; after having given *the theory of juridical law*, will lecture *on the theory of juridical rational law, and on rational principles of family right, and of public right*, Mondays, Wednesdays and Fridays, at 10 o'clock.

GENINA LUIGI, in Penal Law, after having given *the general ideas of offense, of imputation, and of punishment*, will lecture *on offenses against public faith, and on offenses against the peace and the order of families and of individuals*, Tuesdays, Thursdays, and Saturdays, at 9 o'clock.

PESCATORE MATTEO, in Judiciary Law, will expound the *principal parts of criminal proceeding, and will give its theory of evidences*, Tuesdays, Thursdays, and Saturdays, at 9 o'clock.

MELEGARI LUIGI AMEDEO, in Constitutional Law, *will give an historical introduction on representative institutions, after which he will lecture on the rights of citizens and on their guarantees*, Tuesdays, Thursdays, and Saturdays, at 11 o'clock.

BUNIVA GIUSEPPE, in Civil Law, will lecture on *Testamentary Successions*, Mondays, Wednesdays, and Fridays, at 9 o'clock.

FERRARA FRANCESCO, in Political Economy; will deliver lectures on it, Tuesdays, Thursdays, and Saturdays, at 10 o'clock.

LIONE ANTONIO, in Administrative Law, will lecture on it, Mondays, Wednesdays, and Fridays, at 9 o'clock.

MANCINI PASQUALE STANISLAO, in International Law; will lecture *on the Elements of international, public, national and positive law*, Mondays, Wednesdays, and Fridays, at 11 o'clock.

ANSELMI GIORGIO, will lecture *on the Institutions of Roman law*, every day, at 10 o'clock.

DEMARGHERITA ALESSANDRO, in the History of Jurisprudence; will lecture on it, every day, at 9 o'clock.

AVONDO CARLO and GASTALDETTI CELESTINO, extraordinary professors, will take the place of the above professors, in case of their being prevented from lecturing.

FACULTY OF MEDICINE AND SURGERY.—This faculty possesses nineteen chairs, and its course continues through six years. It is strictly prohibited by the law of the country to exercise the profession of medicine or surgery, without having obtained the diploma of doctorship from one of the universities of the state. This diploma is only bestowed upon the accomplishment of the full course of the faculty, and of passing the examinations which are prescribed by law. The same provision is enforced in all the faculties of the university for the exercise of the professions relative to them. 1st chair, Chemistry; 2d, theoretical and practical Pharmacy, and toxicologic Chemistry; 3d, Mineralogy; 4th, Botany; 5th, Zoölogy; 6th, Anatomy; 7th, Physiology; 8th, medical and surgical Institutions; 9th, Materia medica; 10th and 11th, theoretical and practical Medicine; 12th and 13th, theoretical and practical Surgery; 14th, theoretical Obstetrics and obstetrical Clinic; 15th, surgical Operations and operative Clinic with anatomical and surgical exercitations at the hospital; 16th, Hygiene and public health; 17th, Legal medicine and Toxicology; 18th, Clinic of mental diseases; 19th, pathological Anatomy. The order of the course is the following: *1st year*, Chemistry, Mineralogy, Botany, Zoölogy, Anatomy. *2d year*, Chemistry, Anatomy, Physiology, medical and surgical Institutions, theoretical and practical Pharmacy, and toxicologic Chemistry. *3d year*, anatomical Exercitations, Anatomy, Materia medica, theoretical and practical Medicine, theoretical and practical Surgery. *4th year*, anatomical Exercitations, Materia medica, theoretical

and practical Medicine, theoretical and practical Surgery, medical Clinic, Hygiene and public health. *5th year*, theoretical and practical Medicine, theoretical and practical Surgery, theoretical Obstetrics and obstetrical Clinic, surgical Operations and operative Clinic, medical Clinic, pathological Anatomy, exercitations of operations and bandages. *6th year*, surgical operations and operative Clinic, medical Clinic, Clinic of mental diseases, legal Medicine and Toxicology.

The first year of the course can be pursued in Chambery and in Nice, where four professors in the former city, and three in the latter deliver lectures on the prescribed subjects.

All the students are obliged to complete the entire course of the faculty, and to obtain the diploma of Doctorship, both in medicine and in surgery, whether they intend to practice the one or the other, or both. But those, who intend to devote themselves to the exercise of the obstetric art, are obliged to attend for six months the obstetric clinic at the maternity hospital, and to pass a practical examination on that art. Women, who intend to follow the profession of midwives, are obliged to frequent the same clinic and to pass the same examination. In the cities of Novara, Vercelli, Voghera and Chambery, there is a free practical school of obstetrics for women; and the students of the school of Novara are supported by the municipalities of the townships, which send them to that school.

There is a class of students, who intend to limit their practice to bleeding. In order to obtain the approbation for this practice, they are obliged to pass through a course of two years, in the first of which they attend the lectures of anatomy, in the second of anatomy, physiology, and medical and surgical institutions. They must also spend a year in the practice of their art, under a licensed phlebotomist, after which they are allowed to present themselves for a final examination, which, if successful, gives them the right to have the diploma of phlebotomy, and to receive the license of its exercise.

The following is the catalogue of the faculty for the year 1856–57:

Riberi Alessandro, member of the supreme Council of instruction, in Operations, will lecture *on the principal surgical Operations*, at 8 o'clock, A. M., Tuesdays, Thursdays, and Fridays; besides, *he will teach at the hospital of St. John the operative Clinic*, at half past 6 every day.

Pasero Francesco, in theoretical and practical Surgery; will lecture on *Diseases of the Mouth*, in the first four months, and in the following on *Diseases of the Eyes*, at half past 10, Tuesdays, Thursdays, and Saturdays. Besides, *he will teach at the hospital of St. John, surgical Clinic*, at half past 2, every day.

Berutti Secondo Giovanni, in Physiology, will deliver lectures on *general and special physiology, and will occasionally perform experiments on living animals*, at 9 o'clock, Tuesdays, Thursdays, and Saturdays.

Girola Lorenzo, in theoretical and practical Medicine, will lecture on Neurosis, viz.: on *Neuropachy and especially on organic Innervation of sensitiveness, and of mobility*, Mondays, Wednesdays, and Fridays, at half past 10; *he will, also, at the hospital of St. John, teach medical Clinic*, at half past 2, every day.

Allipprandi Michele Luigi,* in Obstetrics, will lecture on *womb, pregnancy, Orology, Accouchment, the normal and abnormal state of new born children*, at half past 8, Mondays, Wednesdays and Saturdays. He will also give practical lessons *on Obstetric Clinic*, at the Maternity Hospital, on days and hours to be fixed according to the occasions.

* Since dead.

VIGLIETTI GIOVANNI ANTONIO, in Hygiene and Public Health, will lecture on it, at 8 o'clock, Tuesdays, Thursdays, and Saturdays.

CARMAGNOLA PAOLO ANDREA, in theoretical and practical Medicine, will lecture *on Inflamation generally*, and afterward *on Inflamations of the bowels*, at 8 o'clock, Mondays, Wednesdays, and Fridays; he will also teach *medical clinic*, at the hospital of St. John, at half past 2, every day.

FIORITO GIOACHINO, in medical and surgical Institutions, will lecture on *Methodology and History of medicine*, and afterward *on general, medical and surgical Pathology*, at half past 8, Mondays, Wednesdays, and Fridays.

MALINVERNI SISTO GERMANO, in pathologic Anatomy, will lecture on it, at the hospital of St. John, at three-quarters past 9, Mondays, Wednesdays, and Fridays.

DEMARIA CARLO, in legal Medicine, will lecture *on it, and especially on Toxicology*, at three-quarters past 9, Mondays, Wednesdays, and Fridays.

MAJOLI GIACOMO, in theoretical and practical Surgery, will lecture *on Inflamations and on their consequences, in regard to surgery, on Tumors generally, on organic, dynamic diseases of the bones and articulations*, at a quarter past 9, Tuesdays, Thursdays, and Saturdays; he will also, at 8 o'clock at the Charity Hospital teach the *Clinic of syphilitic diseases*, Mondays, Wednesdays, and Saturdays.

DEMICHELIS GIUSEPPE, in materia Medica, after having given *the General Principles*, will lecture *on purgative, anthelmintic, secretive and hyposthenic Medicaments*, at half past 9, Mondays, Wednesdays, and Fridays.

BONACOSSA GIOVANNI, principal physician of the Royal Lunatic Asylum, in the Clinic of mental diseases, will teach *this Clinic in the said asylum*, at half past 9, Tuesdays and Saturdays.

N. N. in anatomy, in the first five months after having given *an Introduction*, he will teach descriptive *Anatomy on the subject*, at the amphitheatre of the hospital of St. John, and in the three last months he will lecture on *the general Anatomy of tissues of the human system*, at three-quarters past 11, every day.

CONTI MATTEO, the dissector of the anatomical theatre, will take the place of the above professors, when prevented from lecturing.

The students of medical and surgical science are trained in the practice of the profession in the hospitals of the Capital, of which we shall give here a short sketch:

THE HOSPITAL OF ST. JOHN THE BAPTIST was founded in the fourteenth century. It receives all medical and surgical patients, with the exception of those suffering from contagious diseases. It has 418 beds, of which 213 are occupied by those affected internally, 109 by external, and 96 by chronic diseases. There are also private rooms for individuals, who can afford to pay moderate charges. The number of patients annually received at the hospital is between five and six thousand. The two professors of the medical clinic have 14 beds each, for the instruction of the students, and the professor of surgical clinic has 6 in the hall of men, and as many in the hall of women for the same purpose. Twenty-one students of the faculty are selected among the best, who assist the ordinary physicians, and in return receive either free board or an annual pecuniary allowance.

THE HOSPITAL OF SAINTS MAURICE AND LAZARUS was founded in 1572, with the object of treating those acute diseases which are not contagious. It receives every year about a thousand patients; eight students of the university are appointed for the service of the hospital and the assistance of the ordinary physicians, and enjoy the same privileges of those of the hospital of St. John.

THE MILITARY HOSPITAL OF THE DIVISION OF TURIN.—Its object is to receive the sick soldiers and officers, whose station is in the Division of Turin. It has 430 beds, and affords the occasion of practical instruction to those students, who wish to become physicians and surgeons of the army.

For their assistance to the hospital they receive also free board, and are obliged to follow the courses of the university.

The Institution and the Hospital of St. Louis Gonzaga.—It was founded in 1794, with the object of aiding and nursing the sick who could not be admitted to other hospitals, on account of the nature of their diseases. The institution provides also with medical advice, visits, remedies, and comforts at their own home those, who do not wish to be brought to the hospital. This has 200 beds, and receives by preference patients affected by consumption, cancer, chronic dropsy, scurvy, and leprosy.

The Maternity Hospital, in which the obstetric clinic is established, receives about six hundred patients a year. There is also in this hospital the school for midwives, with eight or ten pupils.

The Royal General Charity House, of which we spoke above, is the seat of the school for the clinic of syphilitic diseases; four students of the university are appointed to assist the physicians of the hospital, and they receive the same allowances as in the other institutions.

The Royal Lunatic Asylum affords the pupils the occasion of studying mental diseases, the clinic of which is here practiced. The asylum contains two hundred and fifty patients, of both sexes, and supports four students for their assistance.

The Ophthalmic Dispensary affords free advice, remedies, and cure to the poor; patients who can afford it pay a small sum for their board and lodging. It contains two hundred patients.

The Orthopedic Establishment was founded in 1823, with the object of curing the crippled, maimed, and deformed, etc. It has acquired a great reputation, and it is considered as one of the first establishments of the kind in Europe.

Faculty of Belles-lettres and Rational Philosophy. This faculty prepares doctors and professors of rhetoric and philosophy. No one can be appointed professor of these departments, or allowed to teach either in public or private schools, if he has not completed the established courses and obtained the diploma of Doctorship from the faculty.*

The Course of Belles-lettres, is given by seven professors, and embraces the following subjects: 1st, Greek grammar and general Grammar; 2d, Italian literature; 3d, Latin Literature; 4th, Greek Literature; 5th, ancient History; 6th, modern History; 7th, Roman and Greek Archæology. This course is divided into four years; in the *first year*, the students are taught Greek and general grammar, Italian and Latin literature, and Roman Archæology; in the *second year*, Italian, Latin and Greek literature, ancient history, and Greek archæology. In the *third and fourth years*, Italian, Latin and Greek literature, ancient and modern history.

The Course of Rational Philosophy possesses three chairs: 1st,

* To the chairs of this faculty we must add three more, recently established by a law of the Parliament, viz.: 1st, Philosophy of history; 2d, Geography and Statistics; 3d, French literature. As the professors of these chairs are not yet appointed, we can not publish the programme of these branches of instruction.

Metaphysics; 2d, Moral Philosophy; 3d, History of the ancient Philosophy. The students are obliged also to attend the lectures on Italian and Latin literature, on general Methodology, on the higher Geometry, and natural Sciences, which are delivered by the professors of other faculties. The subjects are divided as follows:

In the *first year*, Metaphysics, higher Geometry, Latin literature, Chemistry; *second year*, Metaphysics, History of ancient Philosophy, physical Science, and Italian literature; *third year*, Metaphysics, Moral Philosophy, History of Philosophy, Mineralogy, Zoölogy; *fourth year*, Metaphysics, Moral Philosophy, History of Philosophy, and general Methodology.

The course of Method, which is connected with this faculty, does not intend to give any diploma of Doctorship, but only to prepare professors for the provincial schools of method. From these professors the provincial inspectors of elementary instruction are generally selected. The course is completed in two years; in the *first*, the students learn general Chemistry, Mineralogy, Botany and Zoölogy, attending the lectures of the professors of these sciences, and prepare themselves for an examination on all the subjects, which enter into the programme of the four elementary classes. In the *second* they attend the lectures on Pedagogy, and on Method, both general and special, applicable to the elementary schools.

With this faculty a normal school is also connected, for the preparation of the professors of Latin grammar. The course is also completed in two years; in the *first*, the students attend the courses of institutions of belles-lettres, of Greek and general grammar, of ancient History, and Archæology. In the *second*, they attend the lectures on Italian and Latin literature, on method applied to the instruction of the Latin and Italian languages, on ancient History, and Archæology.

The doctors in belles-lettres and on philosophy, who come from this faculty, are appointed by the government to the chairs of those departments in the royal or national colleges. Their salaries are paid by the government, and after thirty years of employment, they are entitled to retire with a pension equal to their full salary. Their widows and children under age are also entitled to a pension. This provision is applied to all the officers of the government, and thus to all the professors of the colleges and of the universities.

The following is the catalogue of the faculty for the year 1856–7:

Paravia Alessandro,* in Italian Literature, will lecture *on the Pleasure of Poetry, and on differences between a didactic Poem, and a Treatise;* he will also continue *the critical history of the tragic Theatre from Trissino to Alfieri*, at 12 o'clock, Mondays and Wednesdays; on Fridays *the Students will read their compositions in verse and prose, on which he will make his critical observations;* and on Thursdays, at 3 o'clock, *he will continue his lectures on the History of the country, from Count Amedeus VII.*

Barucchi Francesco, member of the supreme Council of instruction, in History and Archæology, will lecture on *Roman history and Archæology*, on Mondays, Wednesdays and Fridays, at 10 o'clock.

Prieri Bartolomeo, member of the Council of the University, in Greek literature, will explain in the first three months *some historical passages of Xenophon and Herodotus;* then *two Philipics of Demosthenes*, and at the end of the year *some passages of Homer*, on Tuesdays, Thursdays and Saturdays, at 12 o'clock.

Vallauri Tommaso, in Latin Literature, will lecture *on the critical History of Latin*

* Since dead.

Literature, from the death of Augustus to the Emperor Adrian; he will also comment on *some passages from the Histories of Tacitus, from the Satires of Juvenal, and from the Roman history of C. Vellejus Paterculus*; besides, on one day of the week he will give *his criticism on the compositions of the Students*, on Tuesdays, Thursdays and Saturdays, at 11 o'clock.

DANNA CASIMIRO, member of the general Council of the elementary schools, will lecture *on the Institutions of Belles-lettres*, Tuesdays, Wednesdays, Fridays, and Saturdays, at 3 o'clock.

BONA BARTOLOMEO, in Greek and general Grammar, *will explain the critical Grammar of Greek, and will develop the theories of the most accomplished modern philologists*; he will also *exercise the Students on the interpretation of Greek writers*, on Mondays, Wednesdays and Fridays, at 9 o'clock. *He will lecture*, on Saturdays, at 9 o'clock, *on the Philosophy of language, and will apply the general principles to the classical languages.*

RAYNERI GIOVANNI ANTONIO, member of the general Council of the elementary schools, in Methodology, will lecture *on general Method*, on Mondays, Tuesdays, and Saturdays, at 11 o'clock.

RICOTTI ERCOLE, in modern History, *after having pointed out the most important changes which have occurred in Europe, from* 1492 *to* 1700, will lecture *on the History of Europe, from* 1700 *to* 1789, *and more particularly on the History of France and of Italy*, on Mondays and Fridays, at 11 o'clock. On Wednesdays he will exercise the Students *on the knowledge of the historical writers, and on historical teaching.*

BERTINI GIOVANNI MARIA, member of the general Council of the elementary schools, and an extraordinary member of the supreme Council of public instruction, on the history of ancient Philosophy, will lecture *on the History of Philosophy, from Descartes to our times*, on Mondays, Wednesdays and Fridays, at 10 o'clock.

BERTI DOMENICO, in Moral Philosophy, will lecture *on the comparative History of the principal systems of Moral Philosophy*, on Mondays, Wednesdays, and Fridays, at 12 o'clock.

PEIRETTI GIOVANNI BATTISTA, in Metaphysics, will lecture *on Theological Metaphysics*, on Tuesdays, Thursdays and Saturdays, at 10 o'clock.

FLECHIA GIOVANNI, on Sanscrit, will lecture on the *Grammar of Sanscrit*, and will interpret *Visvamotra, an Episode of the Ramajana*; he will also explain *some fables from the Hitopadesa, and two hymns of the Rigveda*, on Tuesdays, Thursdays, and Saturdays, at 10 o'clock.

SCHIAPARELLI LUIGI, will take place of the professor of History and Archæology.

BERTINARIA FRANCESCO will take place of the professors of Philosophy.

RICHETTI CARLO and BACHIALONI CARLO will take place of professor of Method, when prevented from lecturing.

FACULTY OF PHYSICAL SCIENCES AND MATHEMATICS.—This faculty embraces the following courses: 1st, Physical Science and Geometry; 2d, Natural History; 3d, Chemistry; 4th, Mathematics; 5th, Architecture.

THE COURSE OF PHYSICAL SCIENCE AND GEOMETRY is attended by the students who intend to become professors of these sciences in the secondary schools. It comprehends the lectures of the following chairs: 1st, Finite and Infinitesimal Analysis; 2d, Descriptive Geometry; 3d, Experimental Physical Science; 4th, Superior Physical Science; 5th, Chemistry; 6th, Mineralogy; 7th, Zoölogy; 8th, Botany. The lectures are divided in the following order, through four years: 1*st year*, Experimental Physical Science, Finite analysis, Linear Drawing: 2*d year*, Experimental Physical Science, Differential and Integral Calculation, Chemistry; 3*d year*, superior Physical Science, Mineralogy, Zoölogy, and Descriptive Geometry; 4*th year*, Superior Physical Science, Botany, practical experiments of Physical Science and Chemistry.

THE COURSES OF NATURAL HISTORY AND CHEMISTRY intend to prepare professors of these sciences for the secondary schools. They embrace the following subjects: 1st, Algebra and higher Geometry; 2d, Physical experimental Science; 3d, Chemistry; 4th, Mineralogy; 5th, Zoölogy; 6th, Botany. The subjects prescribed for the course of natural history are divided through four years, as follows: *In the first year*, the students attend the lectures on experimental Physical Science, Chemistry, Algebra

and superior Geometry; *in the second year*, on Chemistry, Mineralogy, Zoölogy and Botany; *in the third year*, Mineralogy, Zoölogy, and Botany; *in the fourth year*, Mineralogy, Zoölogy, and Botany. The subjects for the course of Chemistry follow this order: *first year*, experimental Physical Science, Botany, Algebra, and superior Geometry; *second year*, experimental Physical Science, Chemistry, Zoölogy, and practical experiments in Chemistry; *third year*, Chemistry, Mineralogy, technical Chemistry, and practical experiments in Chemistry; *fourth year*, attendance at the laboratory of Chemistry, and the lectures on agricultural Chemistry.

The course of Mathematics proposes to prepare hydraulic engineers. They are requested to attend the lectures, 1st, on Algebra; 2d, on plain and spherical Trigonometry; 3d, on analytic Geometry; 4th, on infinitesimal Analysis, differential and integral Calculus; 5th, on descriptive Geometry; 6th, on rational Mechanics, and on Machines; 7th, on practical Geometry; 8th, on Hydraulics; 9th, on Architecture; 10th, on Buildings, and on Chemistry applied to the art of building. The order is as follows; 1*st year*, Algebra, plain and spherical Trigonometry, analytical Geometry, architectural Drawing; 2*d year*, infinitesimal Analysis, differential and integral Calculus, descriptive Geometry, Architecture; 3*d year*, rational Mechanics, Machines, practical Geometry, Architecture; 4*th year*, Hydraulics, Buildings, and Chemistry applied to the art of building. Should the students of this course intend to obtain also the diploma of *civil architects*, besides the diploma of hydraulic engineers, they are obliged to attend, in the fourth year of their course, the lectures on *Civil Architecture*.

The course of Civil Architecture proceeds through four years, on the following subjects; 1st, algebraic Analysis; 2d, descriptive Geometry; 3d, practical Geometry; 4th, rational Mechanics; 5th, Architecture; 6th, Buildings, and Chemistry applied to the art of building. The lectures follow this order: 1*st year*, Architecture, algebraical Analysis; 2*d year*, Architecture, descriptive Geometry; 3*d year*, Architecture, practical Geometry, rational Mechanics; 4*th year*, Architecture, Building, experiments on Chemistry applied to the art of building.

Besides the preceding courses, a course for the education of Apothecaries is connected partially with this faculty, and partially with the faculty of medicine and surgery. This course is of two years, and embraces the following subjects: 1st, Mineralogy; 2d, Botany; 3d, organic and inorganic Chemistry; 4th, Pharmacy, Toxicology, Chemistry, History of drugs; 5th, Exercises in preparations. The students are obliged to attend the lectures of all these subjects in both the years of their course. Besides this course and the relative examinations, the candidates are obliged to spend two years as assistants in a licensed pharmacy, to pass an examination in this practice, and to sustain a public disputation on Mineralogy, Botany, Chemistry, and theoretical and practical Pharmacy.

For the profession of *Land Surveyors*, there is no public course prescribed, but the students are obliged to file their names in the register of the university, declaring their intention of studying for that profes-

sion. After this, they are obliged to study and to practice for three years under the direction of an engineer, architect or land surveyor, to be chosen by themselves, and to pass afterward a private and a public examination, at the university, on the subject of their courses.

The catalogue of the faculty for the year 1856–7 is as follows:

PLANA GIOVANNI, vice-president of the supreme Council of public instruction, in Analysis, will lecture *on the introduction to the Infinitesimal Analysis, and on the Elements of differential and integral Calculus*, at half past 11 o'clock, every day.

MORRIS GIUSEPPE, member of the supreme Council of public instruction, in Botany, will lecture on *Organography, Glossology, vegetable Physiology, and Taxonomy; he will also undertake excursions in the neighborhood of the city, in which he will exercise his Students in determining Species; he will point out the natural families, (3d series,) and the medicinal, economical, and industrial plants in the botanic garden; finally, he will lecture on the distribution of vegetables on the superficies of the globe*, at half past 10, on Mondays and Fridays, till April, then every day, at half past 9.

SISMONDA ANGELO, member of the Council of the university, in Mineralogy, after having given *the general principles of Mineralogy*, will lecture *on Flint Stone and its compounds, and on fossil combustibles*, every day, at a quarter past 8.

POLLONE IGNAZIO, extraordinary member of the supreme Council of public instruction, and member of the general Council for the elementary schools, in Analysis, will lecture *on algebraic Analysis, on Trigonometry, and on analytical Geometry*, at half past 11, every day.

PROMIS CARLO, in civil Architecture, will lecture on it, at half past 9, every day.

MENABREA LUIGI FEDERIGO, in Construction, will give *the Theory of construction*, on Mondays, Wednesdays and Fridays, at half past 10; and on Thursdays will *apply the theory to special cases*.

DEFILIPPI FILIPPO, in Zoology, after having *given the general Ideas of the Structure and functions of animals, will lecture on mollusks, etc., and at the close of the year, will give a course of lectures on parts of the human body*, at half past 8, every day.

ARBENE ANGELO, in Pharmaceutic Chemistry, after an *Introduction*, will lecture *on Galenic Medicaments, and then on Medicaments taken from the inorganic kingdom*, on Tuesdays, Thursdays and Saturdays, at half past 10. In the two last months he *will lecture on chemical Toxicology*.

RICHELMI PROSPERO, in Hydraulics, will lecture on this subject, every day, at half past 8; at the close of the year he will make hydraulic experiments at the Royal Hydraulic Tower, during the mornings.

ERBA GIUSEPPE BARTOLOMEO, in Algebra and superior Geometry, will lecture on these subjects, every day, at a quarter past 8.

FERRATI CAMILLO, in practical Geometry, will lecture on it every day, at half past 11; on Mondays, Wednesdays and Fridays, he will lecture on *descriptive Geometry*, at 3 o'clock.

CHIO FELICE, in Superior Physical Science, will lecture on it, at half past 2, on Mondays, Wednesdays and Fridays.

PIRIA RAFAELLE, in general Chemistry, after having given *the general principles and laws of Chemistry*, will lecture on *Inorganic and Organic Bodies*, at half past 9; he will make occasionally practical experiments.

N. N, in general and experimental Physical Science, will lecture on it, making occasionally public experiments, at 2 o'clock, on Mondays, Wednesdays and Fridays.

DELPONTE GIO BATTA will take place of the professor of Botany.

SISMONDA EUGENIO will take place of the professor of Mineralogy.

SOBRERO ASCANIO, in Chemistry applied to arts and industry, will lecture on *Chemistry applied to the Art of construction*.

BRUNO GIUSEPPE will take place of the professors of Mathematics.

CIMA ANTONIO will take place of the professor of Physical Science.

BORSARELLI PIETRO will take place of the professor of Pharmaceutic Chemistry, when prevented from lecturing.

The method of teaching is by lectures and by experiments in the experimental branches. Most of the professors publish elementary treatises on the subjects of their lectures, which are valuable both to the students and professors. These are also required to point out in their lectures and treatises the principal writers to be consulted by the students on the subjects of their study.

The discipline of the students is maintained by the same system, which is followed in the secondary schools. Indeed we should say, that expulsion

from the university is the only punishment, which can be applied by the scholastic authorities; we must also say, that the occasion very seldom arises of applying such a punishment. The Rector of the university is especially charged with the discipline of the institution.

Connected with the university, and under the direction of the government, there is a ROYAL COLLEGE OF THE PROVINCES, founded and endowed by the munificence of the kings of Sardinia and enriched by legacies of private benevolence. This is an establishment, in which the students are furnished with free board and lodging through all the course of the university, and with every aid in their studies and education. The royal college of the provinces disposes of about one hundred and fifty free places, which are given as a reward to those students, who have passed the most successful examinations. These examinations are opened whenever a vacancy occurs, and those students only can present themselves who have completed the secondary courses, and who are born in that province, to which belongs the vacant place. The students of the royal college of the provinces are also exempted from the examination fees.

After having completed the full course of the faculty, and having passed successfully all the annual examinations prescribed by law, the students are requested to enter upon a public disputation for obtaining the Doctorship. This disputation is upon subjects selected from those of the course, and published by the candidate. The discussion is sustained before the faculty, in which the collegiate doctors fill the office of examiners and opponents. The faculty afterward decides by ballot upon the merit of the candidate, bestowing upon him the Doctorship or rejecting his application.

The names of the students, who distinguished themselves in the examinations, are published at the close of the year, in the official paper.

From the colleges under the direction of the university of Turin, 740 students presented themselves in the year 1855–56 for examination preparatory to admission to the courses of the university, of which 607 were admitted, and 133 rejected. In the year 1856–7 there are in the university 1433 students, of which 2 belong to the faculty of theology, 709 to the faculty of jurisprudence, 264 to the faculty of medicine and surgery, 11 to the course of obstetric clinic, 17 to phlebotomy, 182 to pharmacy, 36 to the course of physical science and geometry, 7 to natural history, 16 to rational philosophy, 188 to the course of mathematics, 4 to the course of architecture, 32 to belles-lettres, 7 to methodology, 8 to the course of Latin grammar. Adding to this number the students, who pursued some part of their course in some provincial city, we have the total number of students 1858.

In the university of Genoa there were, according to the latest statistics, 556 students, of which 6 belonged to the faculty of theology, 282 to jurisprudence, 182 to medicine, surgery, and pharmacy, 86 to mathematics and architecture. The number of the students of the university of Cagliari was 325, of which 53 of theology, 125 of jurisprudence, 130 of medicine, surgery, and pharmacy, 11 of architecture, 6 of geodesy. The

number of the university of Sassari was 245, of which 43 of theology, 123 of jurisprudence, 76 of medicine, surgery, and pharmacy. From the colleges which depend upon the university of Genoa, there pass annually to the classes of the university an average of 202 students, from that of Cagliari 120, from Sassari 94, and the students who obtain annually the doctorships in the university of Turin reach an average of 525, in that of Genoa 140, in that of Cagliari 74, in that of Sassari 49.

The number of the professors in the university of Turin, including those of the cities of Chambery and Nice is 89, of Genoa 46, of Cagliari 34, of Sassari 29. Their salary is not uniform, being greater in Turin than in the other universities.

The university of Turin possesses for the aid of the intellectual education of its students the following institutions, the free use of which belongs to the professors, as well as to the scholars and the people at large.

1. A PUBLIC LIBRARY, which was founded by Emanuel Philibert, endowed by other kings, especially by Victor Amedeus II, and enriched by private donations. The library contains more than one hundred and ten thousand volumes, among which the collection of works on theology, jurisprudence, politics, medicine, and surgery, is the most complete. The principal treasures of the library are the Arabic, Greek, Latin, Italian, and French MSS. It possesses also many rare editions of the century in which the press was discovered, not a few of which are on parchments, among these the POLYGLOT OF ANTWERP, which was presented to the Duke Emanuel Philibert by Philip II. of Spain. There are also over one hundred MSS., of the remotest antiquity, on parchment, and a very rich collection of books on the fine arts, of ancient and modern prints, and drawings. The collection of Floras is complete, and there are many choice and rare editions of Arabic, Persian, Chaldaic and Hindoo books.

2. ANATOMICAL THEATRE.—The new anatomical theatre was founded by Charles Albert. Its architecture is simple and elegant in its construction, and it is surmounted by a roof of glass. Within are pipes, spouts, washing tubes, polished floors, and marble tables. The spacious hall destined to dissections is provided with all the improvements, which health and cleanliness require in anatomical operations. Under the main amphitheatre there is a spacious vault, where the subjects are deposited, and from which they are raised by means of a machine to a room above, where they are washed and laid on a marble table, and at the hour for the lecture, elevated by the same means to the floor of the amphitheatre, and placed in their position before the professor and the students. By other mechanical contrivances the subject approaches or withdraws from the professor. The light of the hall is so regulated, as to modify it according to the occasions. The walls of this hall are plastered with calcareous stucco, and are adorned with four great medallions, representing BERTRANDI, CIGNA, MALACARNE, and ROLANDO. Near the amphitheatre, there is a room appropriated for the use of the dissector, provided with all the contrivances for experiments. Between the yard of the anatomical theatre

and that of the great hospital of St. John, there is a subterranean communication, which facilitate the transportation of the subjects.

8. Anatomical Pathological Museum.—This museum contains many preparations of the systems and parts of the human body, embryos at different periods, pathological sections in an abnormal state. Among the most remarkable collections of this museum we may mention the collection of bones decomposed by syphilitic diseases, and by the use of mercury; the general osteomalacy, in which bones are light and spongy; the osteosarcoma of an elbow, which is larger than the head of a man; and the specimens of aneurism.

4. Chemical Laboratories and Amphitheatre.—There are six spacious rooms for the use of the laboratories, in which we find admirably arranged stoves and ovens, scales, and other instruments, and chemical and pharmaceutic preparations. The amphitheatre is designed for public lectures, and will seat five hundred pupils so advantageously, that the most minute experiments can be observed.

5. Botanic Garden.—The botanic garden was founded by Victor Amedeus II., and endowed and improved by his successors. Under Charles Albert the limits were enlarged, new canals made, and new pipes added in order to facilitate the irrigation of the plants; the trees and shrubs, which will grow in the open air, were planted and arranged, according to their natural classification in a suitable grove, in which we find also the officinal and economic species, methodically arranged. The same king purchased for the garden the rich collection of American plants brought to Piedmont by the botanist Bertero, and the plants of the islands of Sardinia and Capraja were added. The number of the cultivated species is about eleven thousand, including many of great rarity.

The species of the herbarium exceed forty thousand. There is also a collection of indigenous mushrooms, arranged in three hundred and fifty groups, cast in wax according to nature. The king has recently presented to the garden a beautiful collection of living plants, seeds, and woods brought from Brazil by the Prince of Carignano, and a not less interesting collection of dry species, seeds and fruits, for the study of carpology, gathered by Dr. Casaretto, in his excursion to the same country.

As early as 1782, the plants which blossom in the garden were painted, and that work having been continued to this time, the institution has a most complete botanic iconography, which contains more than five thousand plates *in folio*.

6. Cabinet of Physical Apparatus.—This collection began to be formed in 1721, was enriched by Charles Emmanuel III., and increased by Beccaria. Charles Felix sent Professor Botto to France and England, to purchase all the modern apparatus required by the cabinet, and many fine instruments, especially relating to optics, were added to it by him.

7. Astronomic Observatory.—The observatory was located in the year 1820 on the northern tower of the four, which arise at the angle of the ancient palace of the Royal Castle, now used for the meetings of the Senate. The hall of the observatory is beautifully arranged, and its walls

adorned with many medallions, representing LAGRANGE, GALILEO, TYCHO BRAHE, NEWTON, KEPLER, and CASSINI. The meridian circle is erected between two marble columns in the centre of the hall, and can be turned east or west, at the pleasure of the observer. This instrument was constructed in Munich by Reichenbach, and has a diameter of three feet, divided on silver into arcs of a sixtieth, and reads to two seconds. The clear aperture of the telescope is of 12 centimeters, and its focal length of a meter and six hundred millimeters. Among the other instruments, we may mention a pendulum, which gives the sidereal time, constructed by MARTIN of Paris, two other telescopes by DOLLOND, one with an aperture of 65 millimeters, and of a focal length of a meter, the other of an aperture of a decimeter, and with a focal length of a meter, and 50 centimeters. There is a fourth telescope, by Fraunhofer of Munich, mounted on a brass tripod, with an aperture of 75 millimeters, and a focal length of a meter. There is also a reflector-sextant, by Troughton of London, with a diameter of two decimeters, divided on silver, which reads to five seconds. Ascending to the turning roof on the east, we find a Refractor circle of a diameter of 50 centimeters, divided on silver, which reads to four seconds, the work of Reichenbach. On the west side of the roof is an Equatorial, which has a circle of declination of a diameter of 62 centimeters, divided in silver, and reads to five seconds. The clock has a diameter of 45 centimeters, divided on silver, and marks minutes.

8. HYDRAULIC BUILDING.—This building is erected at a distance of two miles from the city. It consists of a large tower, with three floors, and it can be filled with water from a conduct above. Two large reservoirs receive the water from the tower and measure it; there are besides many aqueducts with different declivities and directions, and a collection of hydrometric apparatus and instruments.

9. ZOÖLOGIC MUSEUM.—Founded during the reign of Charles Emmanuel III., it received many donations from private sources, and was greatly increased by professors Borson and Bonelli; at present it is one of the best museums in Italy. The different classes of animals are arranged in two large halls, in a long gallery, and in many other rooms. The vertebrates, cephalopods, molluscs, and zoophyts occupy large convenient shelves; the living and fossil shells are disposed in elegant cases; the crustacea and insects fill a great number of cases. The invertebrates and testacea are abundant, as well as the shells both living and fossil. Among the living shells is worthy of being mentioned an *avicula margaritifera*, in which a pearl can be seen, wonderful for its volume and for its form. The fossils embrace a collection of shells discovered in the tertiaria of Italy, and especially of Piedmont. Finally, a series of skeletons of rare animals well kept and arranged.

10. MINERALOGIC MUSEUM.—This collection embraces many specimens of minerals, rocks and earth of different countries, and especially of Piedmont, and of the island of Sardinia. It occupies two great halls, where the objects are exhibited either in shelves, on tables, or in cases enclosed by glasses.

11. Museum of Antiquities.—Among these, the coins take the first and most important part, and number fifteen thousand, Egyptian, Greek, Etruscan and Roman, of gold, silver and copper. The collection of marble statues, busts and heads is not large; there is a Cupid sleeping on a lion's skin; a head of Antinous crowned with a garland of vine leaves, like a Bacchante; here is also a mosaic work, which was discovered in the island of Sardinia, and represents Orpheus playing the lyre, surrounded by different animals. Among the statuettes of bronze, Etruscan, Greek, Roman, and Sardinian, may be mentioned a Pallas, a Faunus, many tablets of bronze with Roman inscriptions, a collection of ancient vases either of bronze or of silver, and a collection of Etruscan vases, many of which were discovered in Piedmont.

12. Egyptian Museum.—It is perhaps the most complete in Europe. It was enriched by Charles Felix, who bought a great quantity of these monuments from Chevalier Drovetti, a Piedmontese, who occupied the place of French consul in Egypt. Here are statues of the ancient Pharaohs, many colossal, and all made of one piece, either of spotless granite, or of green and black basalt, or of calcareous stone. There are many statues of ancient kings, or representing gods and goddesses, sacred animals, and mythic emblems; they are of different sizes from the colossal downward. More than two hundred square boards, either carved or painted, represent persons offering food, flowers or fruits. One of them, the other half of which is preserved in the Vatican Museum, represents Sesonchi, the chief of the 22d dynasty, who lived ten centuries before Christ; then we meet a collection of objects of worship: such are two altars of black granite, many marble and stone tables for the offering and the libation, sacred vases of different material and size, perfume vases of stone and of terra-cotta, loaves, grapes, grains, fruits—the specimens of scarabeus, a symbol most venerated by the Egyptians, amount to two thousand. There are a great number of mummies;—their linen or cotton wrappers, and wooden cases, as well as the mummies themselves, are admirably kept and preserved. Here are also many cases containing the mummies of animals, cats, fishes, hawks, reptiles, crocodiles, &c. In the museum are also exhibited more than two hundred rolls, or volumes of papyrus, which belong to the epoch in which Egypt was under the sway of Persia, and thence forward to the times of the Ptolemies and of Rome. Some are written on linen, some on parchment, wood, stone, or terra-cotta, in the Egyptian, Greek, or Coptic language, in hieroglyphic, hieratic or demotic signs. There are likewise linen, clothes, leather stockings, intertwined with palm leaves, vases of copper, of alabaster, etc.

IV. General Direction and Supervision of Public Instruction.

Before the year 1847, the general direction of public education belonged to the secretary of the Interior; but in reality it was in the hands of a council of instruction, called *Magistrato della Riforma agli Studi*, the members of which were appointed by the king, and which exercised full jurisdiction, and had an absolute power over all the scholastic institutions

of the country. In that year this Board was abolished, and a special department of public instruction created with a minister at its head, who takes an equal rank* with the other seven secretaries of state, who compose the cabinet of the administration. It belongs to this department to diffuse and to promote through all the country scientific and literary education, and to aid the progress of the fine arts. It has the supreme direction of all the universities of the state and all the other scientific or educational establishments, of the national, royal, and municipal colleges and schools, whether classic, technical or primary, either public or private, whether for boys, girls, or adults. The appointments of all professors, teachers, inspectors, superintendents, and officers of the instruction supported by the state come under the jurisdiction of this department, and to its approbation the appointments made by municipalities or other corporations for their own institutions must be submitted. It determines to what pupils free board is to be granted in the institutions of the state, and presides over the administration of legacies bestowed upon educational establishments. It promulgates regulations for their management, programmes of instruction, and methods of teaching, approves text-books, and establishes the rules of discipline. All other scholastic authorities, councils of universities and councils of faculties, permanent committees for the secondary schools, inspectors, both of secondary and of primary instruction, general councils for elementary instruction, provincial and collegial councils, royal, provincial, and local superintendents, presidents of boarding schools, directors of instruction, and all similar officers depend on the ministry of public instruction, and are referred to it, as to the central power and the highest authority.

Soon after, in 1848, a SUPREME COUNCIL OF PUBLIC INSTRUCTION was created, (*Consiglio superiore della istruzione publica,*) and attached to the ministry, with the object of aiding and assisting it in the administration of the department. The council is presided over by the minister himself, and is composed of a vice-president, seven ordinary and five extraordinary members, appointed by the government, the former during life, the latter for three years. Five of the ordinary members must be chosen from among the professors of each faculty of some of the universities, while the two others can not belong to any university, but must be elected from among persons of high, scientific or literary repute; the extraordinary members may be either professors or collegiate doctors. Thus the general administration of public instruction was organized in 1848, and coördinated with all the other scholastic authorities, which were established over its different branches. Though a decided improvement on the former system, this organization has been proved by an experience of eight years to be too complicated in its structure, and too weak in its operation. By creating so many councils of different branches of instruction, as separate bodies, independent of each other, the law of 1848

*C. Alfieri C. Boncompagni, V. Gioberti, F. Merlo, L. Cibrario, and P. Gioja have held this office. Dr. G Lanza is the present incumbent, whose noble character and large educational views place him high among the statesmen of Sardinia.

tributed the scholastic government among too many centers, and the administration, losing its unity, became perplexed, confused, and powerless. Besides, the supreme council in its first organization was filled with permanent members, who though of a high standing in the scientific world, yet, belonging to a past age, did not represent the necessities and conditions of the new era, and were entirely unable to direct the national education of the country conformably to its new institutions. Then, the council being mainly composed of one member from each faculty, it formed a body in its majority not qualified for making and enforcing provisions relative to any branches of learning, which were either imperfectly or not at all represented in that board. A like defect of organization was found in the subordinate authorities, where the power was too often entrusted to men lacking sufficient knowledge of the condition of the scholastic system of the country. Add to this, that political questions since that time have absorbed all the activities of the country, and it will be easily understood why the new system of administration proved a signal failure, and the necessity of a reform frequently arrested the attention of Parliament.

It was not, however, until February, 1857, that the House of Deputies passed a bill establishing a new system of administration, which was afterward approved by the Senate, and promulgated by the King. As it changes the organization of the educational authorities of the country, and constitutes a new basis, on which henceforth its administration will rest, we subjoin the bill in full, leaving to time to decide, whether the system recently enacted can be considered a reform, and while the bill contains provisions sufficient to ensure the unity of the directive power, it gives at the same time adequate guarantees of a liberal administration.*

V. Budget of the Department of Public Instruction.

The expenses authorized by the Parliament for the support of education, under the direction of the department of public instruction, during the year 1857, amount to the sum of 2,031,989 francs, viz.:

For the executive department of public instruction,	88,750	francs.
" supreme council of public instruction,	16,500	"
" general council of elementary and teachers' schools,	9,300	"
" university councils and offices of the four universities,	91,221	"
" royal scholastic superintendents,	49,959	"
" inspectors of secondary schools,	14,500	"
" instruction in the universities,	492,862	"
" university teaching in the provinces,	34,350	"
" national, royal and municipal colleges,	600,580	"
" technical schools,	77,540	"
" veterinary school,	81,800	"

The balance of the appropriation is devoted to the scientific establishments, museums, library, subsidies to elementary schools, &c. Adding to this sum the amount raised and expended by the townships and provinces, for the support of public instruction, which reaches 3,557,229 francs, we have a total expenditure of 5,589,216 francs.

To enable our readers to institute a comparison between the other departments and that of public instruction, we give the expenditures of the different branches of the central administration, from the budget of 1856.

Department of	finances,	75,44,753 francs.
" "	grace and justice,	4,226,351 "
" "	foreign affairs,	3,431,745 "
" "	public instruction,	2,045,254 "
" "	the interior,	7,601,846 "
" "	public works,	11,783,714 "
" "	war,	22,247,528 "
" "	navy,	4,355,061 "

In the same year the revenues of the state amounted to 182,529,838 francs. The estimated expenditure of the department of public instruction, as submitted to the Parliament for the year 1858, is 2,100,709 francs.

(Concluded in No. IX.)

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PESTALOZZI.

IV. LIFE AND EDUCATIONAL SYSTEM OF PESTALOZZI.

BY CARL VON RAUMER,

Minister of Public Institutions in Prussia.

(Continued from Vol. III., p. 416.)

For seventeen years after the publication of Leonard and Gertrude, Pestalozzi continued to drag on his needy and depressed existence at Neuhof, where he spent altogether thirty years. Of his outward life during those seventeen years, we learn little else, besides the general fact just stated. It is worthy of mention, that in this period he entered the order of Illuminati, an order which was characterized by infidelity, exaggerated ideas of enlightenment, and destructive but not reconstructive principles, and that he even became eventually the head of the order in Switzerland. He soon discovered his mistake, however, and withdrew from it. "That which is undertaken by associations," he says, "usually falls into the hands of intriguers."

In this period he wrote several books.

In the year 1782, he published "Christopher and Alice." He himself relates the origin of this work. People had imbibed from Leonard and Gertrude the idea, that all the depravity among the common people proceeded from the subordinate functionaries in the villages. "In Christopher and Alice," says Pestalozzi, "I wished to make apparent to the educated public the connection of those causes of popular depravity which are to be found higher in the social scale, but which on this account are also more disguised and concealed, with the naked, undisguised, and unconcealed causes of it, as they are manifested in the villages in the persons of the unworthy functionaries. For this purpose, I made a peasant family read together Leonard and Gertrude, and say things about the story of that work, and the persons introduced in it, which I thought might not occur of themselves to everybody's mind."

So says Pestalozzi in the year 1826; but he spoke otherwise in the preface to the book when it first appeared, in 1782. "Reader!" he says, "this book which thou takest into thy hand is an attempt to produce a manual of instruction for the use of the universal school of humanity, the parlor. I wish it to be read in every cottage."

This wish was not accomplished, as we learn from the preface to the second edition, (1824,) which commences thus, "This book has not found its way at all into the hands of the people. In my native land, even in the canton of my native town, and in the very village in which I once lived, it has remained as strange and unknown, as if it had not been in existence."

In the same year, 1782, and the one following, Pestalozzi edited "A Swiss Journal," of which a number appeared every week. In this Journal, he communicated, among other things, memoirs of deceased friends. Thus he wrote the memoirs of Frölich, the pastor of Birr, who had died young. Pestalozzi says of him, "he dedicated himself to the work of the great divine calling, but eternal love dedicated him to the liberty of eternal life." The way in which he speaks of the excellent Iselin, who had died in 1782, is particularly affecting. "I should have perished in the depths into which I had fallen," he says, "if Iselin had not raised me up. Iselin made me feel that I had done something, even in the poor school."

The discourse "on Legislation and Infanticide" also appeared in 1782.

About 1783, Pestalozzi contemplated the establishment of a lunatic asylum and a reformatory institution, and wrote upon the subject; the manuscript, however, was lost.

In the years between 1780 and 1790, in the days of the approaching French revolution, and in the first symptoms of the dangers which its influence on Switzerland might entail," * he wrote "The Figures to my ABC-Book; they were not published, however, till 1795: a new edition, under the title of "Fables," came out in 1805. They relate principally to the condition of Switzerland at that time.

In the summer of 1792, he went to Germany, at the invitation of his sister in Leipzig, and became acquainted with Göthe, Herder, Wieland, Klopstock, and Jacobi; he also visited several normal schools.

In 1798 appeared Pestalozzi's "Researches into the Course of Nature in the Development of the Human Race." He says himself, speaking of this book, "I wrought at it for three long years with incredible toil, chiefly with the view of clearing up my own mind upon the tendency of my favorite notions, and of bringing my natural feelings into harmony with my ideas of civil rights and morality. But this work too is, to me, only another evidence of my inward helplessness, the mere play of my powers of research; my views were

*Pestalozzi's words in the preface to the "Figures."

altogether one-sided, while I was without a proportionate degree of control over myself in regard to them, and the work was left void of any adequate effort after practical excellence, which was so necessary for my purpose. The disproportion between my ability and my views only increased the more. The effect of my book upon those by whom I was surrounded was like the effect of all that I did; scarcely any one understood me, and I did not find in my vicinity two men who did not half give me to understand that they looked upon the entire book as so much balderdash."

Pestalozzi here assumes three states of man: an original, instinct-like, innocent, *animal* state of nature, out of which he passes into the social state, (this reminds us of Rosseau;) he works himself out of the social state and raises himself to the moral. The social man is in an unhappy middle condition between animal propensities and moral elevation.

The original animal state of nature can not be pointed to in any one individual man; the innocence of that state ceases with the first cry of the new-born child, and "animal depravity arises from whatever stands opposed to the normal condition of our animal existence." Against this depravity, man seeks for aid in the social state, but finds it not; it is only the moral will that can save him, "the force of which he opposes to the force of his nature. He *will* fear a God, in order that the animal instincts of his nature shall not degrade him in his inmost soul. He feels what he can do in this respect, and then he makes what he can do the law to himself of what he ought to do. Subjected to this law, *which he imposes upon himself*, he is distinguished from all other creatures with which we are acquainted."

Where and when, for example, did Pestalozzi's man of nature ever exist—an innocent *animal* man, endowed with instinct? * This character does not apply to Adam in Paradise, who was not an animal, but a lord of the animals, and still less does it apply to any child of Adam. In how simple and sublime a manner, on the

* Voltaire wrote the following characteristic letter to Rosseau about his discourse, prepared and offered for the prize proposed by the Academy of Dixon, on the origin of the inequality among men, and published in 1775:—"I have received your new book against the human race, and thank you for it. You will please men, to whom you speak the truth, but not make them better. No one could paint in stronger colors the horrors of human society, from which our ignorance and weakness promise themselves so many delights. Never has any one employed so much genius to make us into beasts; when one reads your book, one is seized with a desire to go down on all fours. Nevertheless, as I have left off this habit already more than sixty years, I feel, unfortunately, that it is impossible for me to take to it again, and I leave this natural mode of walking to others who are more worthy of it than you and I. Neither can I take ship, in order to visit the savages of Canada, firstly, because the maladies to which I am condemned, render a European physician necessary to me; then again, because there is at present war in that country, and the examples of our nations has made the savages almost as bad as we are ourselves. I am content to live as a peaceful savage in the lonely district adjoining your native land, &c."

contrary, do the Holy Scriptures comprehend and characterize the whole human race.

Thus we see Pestalozzi but little or not at all engaged in educational undertakings during the eighteen years from 1780 to 1798; his writings too, during this time are mainly of a philosophical and political character, and relate only indirectly to education. But the French revolution introduced a new epoch, for Pestalozzi, as well as for Switzerland.

The revolutionary armies of France pressed into the country, old forms were destroyed, the whole of Switzerland was consolidated into an "inseparable republic," at the head of which stood five directors, after the model of the French directional government of that time. Among these was Legrand, a man of a class that is always becoming more rare. I visited the amiable octogenarian in Steinthal, where formerly, with his friend Oberlin, he had labored for the welfare of the communes. When the conversation turned on the happiness or the education of the people, or on the education of youth generally, the old man became animated with youthful enthusiasm, and tears started to his eyes.

Legrand was a friend of Pestalozzi's; no wonder, seeing that the two men very nearly resembled each other in their way of thinking, as well as in their enthusiastic activity and their unbounded hopefulness. Pestalozzi joined the new republic, while, at the same time, he did all in his power to subdue the jacobinical element in it. He wrote a paper "On the Present Condition and Disposition of Mankind." In this paper, as also in the "Swiss People's Journal," which he edited at the instigation of the government, he pressed upon the attention of the people the necessity of a return to the integrity and piety of their ancestors; the instruction and education of youth, he represented, were the means for attaining this object.

Although, in pointing to an ennobling education of youth, and especially the youth of the people and the poor, as the securest guarantee of a lawfully ordered political condition, he only did that which he could not leave undone; still most people believed that he was speaking and writing thus industriously, merely with the view of procuring for himself an office under the new government, when an opportunity should arise. The government on whom he urged with far too much vehemence the importance of order, justice, and law, actually offered him an appointment, in the hope that he would then be quiet. But what was their astonishment, when, in reply to their inquiry as to what office he would be willing to accept, he said, "I WILL BE A SCHOOLMASTER." But few understood him, only those who,

like himself, were earnestly desirous for the foundation of a truly equitable political condition.

Legrand entered into the idea; and Pestalozzi was already about to open an educational institution in the canton of Argovia, when one of the misfortunes of war intervened. On the 9th of September, 1798, Stanz in Unterwalden was burnt by the French, the entire canton was laid waste, and a multitude of fatherless and motherless children were wandering about destitute and without a shelter. Legrand now called upon Pestalozzi to go to Stanz and undertake the care of the destitute children.

Pestalozzi went; what he experienced he has himself told us.

The convent of the Ursulines there was given up to him; he took up his abode in it, accompanied only by a housekeeper, before it was even put into a fit condition for the reception of children. Gradually he gathered around him as many as eighty poor children, from four to ten years old, some of them orphans, horribly neglected, infected with the itch and scurvy, and covered with vermin. Among ten of them, scarcely one could say the alphabet. He describes the educational experiments which he made with such children, and speaks of these experiments as "a sort of feeler of the pulse of the science which he sought to improve, a venturesome effort." "A person with the use of his eyes," he adds, "would certainly not have ventured it; fortunately, I was blind."

For example, under the most difficult circumstances, he wanted to prove, by actual experiment, that those things in which domestic education possesses advantages must be imitated in public education.

He gave the children no set lessons on religion; being suspected by the Roman Catholic parents, as a Protestant, and at the same time as an adherent of the new government, he did not dare; but whenever the occurrence of daily life presented an opportunity, he would make them the groundwork of inculcating some religious or moral lesson. As he had formerly done at Neuhof, he sought to combine intellectual instruction with manual labor, the establishment for instruction with that for industrial occupations, and to fuse the two into each other. But it became clear to him, that the first stages of intellectual training must be separated from those of industrial training and precede the fusion of the two. It was here in Stanz also that Pestalozzi, for want of other assistants, set children to instruct children, a plan which Lancaster was similarly led to adopt in consequence of the inability of the teacher to instruct the large numbers of children who were placed under his charge.* Pestalozzi remarks,

* Lancaster's monitors, *i. e.* children, set to teach and superintend other children. "At that time, (1798,)" says Pestalozzi, "nobody had begun to speak of mutual instruction."

without disapprobation, that a feeling of honor was by this means, awakened in the children; a remark which directly contradicts his opinion, that the performance of the duties of the monitor proceeded from a disposition similar to brotherly love.

Another plan, which is now imitated in countless elementary schools, was likewise tried by Pestalozzi at Stanz, namely, that of making a number of children pronounce the same sentences simultaneously, syllable for syllable.* "The confusion arising from a number of children repeating after me at once," he says, "led me to see the necessity of a measured pace in speaking, and this measured pace heightened the effect of the lesson."

Pestalozzi repeats, in his account of the Stanz institution, what he had brought forward in Leonard and Gertrude. "My aim," he says, "was to carry the simplification of the means of teaching so far, that all the common people might easily be brought to teach their children, and gradually to render the schools almost superfluous for the first elements of instruction. As the mother is the first to nourish her child physically, so also, by the appointment of God, she must be the first to give it spiritual nourishment; I reckon that very great evils have been engendered by sending children too early to school, and by all the artificial means of educating them away from home. The time will come, so soon as we shall have simplified instruction, when every mother will be able to teach, without the help of others, and thereby, at the same time, to go on herself always learning."

I refer the reader to Pestalozzi's own description of his singularly active labors in Stanz, where he was not only the teacher and trainer of eighty children, but, as he says, paymaster, manservant, and almost housemaid, at the same time. In addition to this, sickness broke out among the children, and the parents showed themselves shamelessly ungrateful.

Pestalozzi would have sunk under these efforts had he not been liberated on the 8th of June, 1799, by the French, who, being hard pressed by the Austrians, came to Stanz, and converted one wing of the convent into a military hospital. This induced him to let the children return to their friends, and he went himself up the Gurnigel mountains, to a medicinal spring. Only twenty-two children remained; these, says Mr. Heussler, "were attended to, taught, and trained, if not in Pestalozzi's spirit, still with care and with more order and cleanliness, under the guidance of the reverend Mr. Businger."

* The plan of simultaneous reading and speaking had been introduced into the Austrian schools at an earlier period.

"On the Gurnigel," says Pestalozzi, "I enjoyed days of recreation. I required them; it is a wonder that I am still alive. I shall not forget those days, as long as I live: they saved me, but I could not live without my work."

Pestalozzi was much blamed for giving up the Stanz institution, although necessity had compelled him to do so. "People said to my face," he says, "that it was a piece of folly, to believe that, because a man had written something sensible in his thirtieth year, he would therefore be capable of doing something sensible in his fiftieth year. I was said to be brooding over a beautiful dream."

Pestalozzi came down from the Gurnigel; at the advice of Chief Justice Schnell, he went to Burgdorf, the second town in the canton of Bern, where through the influence of well-wishers, Pestalozzi obtained leave to give instruction in the primary schools.* He had many enemies. The head master of the schools imagined that Pestalozzi wanted to supplant him in his appointment: the report spread that the Heidelberg catechism was in danger: "it was whispered," says Pestalozzi, "that I myself could not write, nor work accounts, nor even read properly. Popular reports are not always entirely destitute of truth," he adds; "it is true that I could not write, nor read, nor work accounts well.

As far as the regulations of the school would allow, Pestalozzi prosecuted here the experiments in elementary instruction which he had begun at Stanz. M. Glayre, a member of the executive council of the canton, to whom he endeavored to explain the tendency of these experiments, made the ominous remark, "You want to render education mechanical." "He hit the nail on the head," says Pestalozzi, "and supplied me with the very expression that indicated the object of my endeavors, and of the means which I employed for attaining it."

Pestalozzi had not been schoolmaster at Burgdorf, quite a year, when he had a pulmonary attack; in consequence of this he gave up the appointment, and a new epoch of his life commenced. M. Fischer, secretary to the Helvetian minister of public instruction, had entertained the idea of founding a normal school in the castle of Burgdorf, but had died before carrying it into execution. With this end in view, he had induced M. Krüsi to come to Burgdorf. Krüsi was a native of Gaiss, in the canton of Appenzell, was schoolmaster there at the early age of eighteen, and had migrated thence in the year 1799, taking with him 28 children. Pestalozzi now proposed

* In a school in which children from four to eight years old received instructions in reading and writing, under the general superintendence of a female teacher.

to Krüsi to join him in establishing an educational institution: Krüsi willingly agreed, and through him the coöperation of M. Tobler, who had been for the last five years tutor in a family in Basel, was obtained; through Tobler, that of M. Buss, of Tübingen. With these three assistants, Pestalozzi opened the institution in the winter of 1800.

It was in Burgdorf that Pestalozzi commenced a work which, with the "Evening Hour," and "Leonard and Gertrude," stands out conspicuously amongst his writings. It was commenced on the 1st of January, 1801.

It bears the queer title, "How Gertrude teaches her children: an attempt to give Directions to Mothers how to instruct their own Children." The reader must not be misled by the title; the book contains any thing but directions for mothers."

There are numerous contradictions throughout the book, as well as on the title page; and it is therefore a most difficult task to give a condensed view of it. Almost the only way to accomplish this will be to resolve it into its elements.

Nothing can be more touching than the passage in which the author speaks of the desire of his whole life to alleviate the condition of the suffering people—of his inability to satisfy this desire—of his many blunders—and of his despair of himself; and then humbly thanks God, who had preserved him, when he had cast himself away, and who graciously permitted him, even in old age, to look forward to a brighter future. It is impossible to read any thing more affecting.

The second element of this book is a fierce and fulminating battle against the sins and faults of his time. He advances to the assault at storm-pace, and clears every thing before him with the irresistible force of truth. He directs his attack principally against the hollow education of our time, particularly in the higher ranks of society. He calls the members of the aristocracy "miserable creatures of mere words, who by the artificialities of their mode of life are rendered incapable of feeling that they themselves stand on stilts, and that they must come down off their wretched wooden legs, in order to stand on God's earth with even the same amount of firmness as the people."

In another part of the book, Pestalozzi declaims warmly against all the education of the present age. "It sacrifices, (he says,) the substance of all instruction to the nonsense about particular isolated system of instruction, and by filling the mind with fragments of truth, it quenches the spirit of truth itself, and deprives mankind of the power of independence which is based thereon. I have found, what

was very obvious, that this system of instruction, does not base the use of particular means either on elementary principles or elementary forms. The state of popular instruction rendered it inevitable that Europe should sink into error, or rather madness, and into this it really did sink. On the one hand, it raised itself into a gigantic height in particular arts; on the other, it lost for the whole of its people all the stability and support which are to be obtained by resting on the guidance of nature. On the one side, no quarter of the globe ever stood so high; but on the other, no quarter of the globe has ever sunk so low. With the golden head of its particular arts, it touches the clouds, like the image of the prophet; but popular instruction, which ought to be the basis and support of this golden head, is every where, on the contrary, the most wretched, fragile, good-for-nothing clay, like the feet of that gigantic image."

For this incongruity in our intellectual culture, he blames chiefly *the art of printing*, through which, he says, the eyes have become book-eyes—men have become book-men.

Throughout the work, he speaks against the senseless use of the tongue—against the habit of talking without any real purpose. "The babbling disposition of our time, (he says,) is so much bound up with the struggle of tens of thousands and hundreds of thousands for their daily bread, and with their slavish adherence to custom, that it will be long, very long, before this temporizing race shall gladly receive into their hearts truths so much opposed to their sensual depravity. Wherever the fundamental faculties of the human mind are allowed to lie dormant, and on those dormant faculties empty words are propt up, there you are making dreamers, whose visions are all the more visionary because the words that were propt up on their miserable yawning existence, were high-sounding, and full of pretensions. As a matter of course, such pupils will dream any and every thing before they will dream *that they are sleeping and dreaming;* but all those about them who are awake, perceive their presumption, and, (when it suits,) put them down as somnambulists.

"The meaningless declamation of this superficial knowledge produces men who fancy that they have reached the goal in all branches of study, just because their whole life is a belabored prating about that goal; but they never accomplish so much as to make an effort to reach it, because through their life it never had that alluring charm in their eyes which any object must possess to induce a man to make an effort to attain it. The present age abounds in men of this class, and is diseased by a kind of wisdom which carries us forward *pro formâ*, as cripples are borne along a race-course, to the goal of knowl-

edge, when, at the same time, it could never enable us to advance toward this goal by our own efforts, before our feet had been healed."

In other parts of the book he attacks governments as indifferent to the welfare of the people. "The lower classes of Europe, (he says,) are neglected and wretched: most of those who stand sufficiently near to be able to help them, have no time for thinking what may be for their welfare—they have always something to do quite different from this."

From this, the second and polemical element of the book, I pass to the third and positive one, namely, the kind of education by which Pestalozzi proposes to replace the false education of our time. This might in some measure be anticipated from the polemical passages which have been cited.

He thus enunciates the problem which he proposed to himself to solve: "In the empirical researches which I made in reference to my subject, I did not start from any positive system; I was not acquainted with any one; I simply put to myself the question, What would you do, if you wanted to give a single child all the theoretical knowledge and practical skill which he requires in order to be able to attend properly to the great concerns of life, and so attain to inward contentment?"

Theoretical knowledge and practical skill constitute, accordingly, the most important subjects of the work. They are treated with a special relation to the two questions,—What knowledge and skill do children require? and, How are these best imparted to them? The aim is to point out the proper object of education, and the way to attain that object.

Of practical skill, however, there is comparatively very little said, notwithstanding that Pestalozzi sets so high a value upon it. "Knowledge without skill, (he says,) is perhaps the most fatal gift which an evil genius has bestowed upon the present age." But Pestalozzi's ideas in relation to practical skill, and the method of attaining it, seem to have been still indistinct.

On the other hand, he is quite at home in the region of theoretical knowledge: to show the starting-point, the road, and the destination, in the journey through this region, is the main design of his work.

His polemic against senseless talking shows that he had sought and found the real root of the tree of which words are the spiritual blossoms.

The beginning of all knowledge, according to Pestalozzi, is *observation;* the last point to be attained, *a clear notion.* He says: "If I look back and ask myself what I really have done toward the

improvement of the methods of elementary instruction, I find that, in recognizing observation as the absolute basis of all knowledge, I have established the first and most important principle of instruction, and that, setting aside all particular systems of instructions, I have endeavored to discover what ought to be the character of the instruction itself, and what are the fundamental laws according to which the education of the human race must be determined by nature." In another place, he requires it to be acknowledged, "that observation is the absolute basis of all knowledge, in other words, that all knowledge must proceed from observation and must admit of being retraced to that source."

But what does Pestalozzi understand by observation? "It is, (he says,) simply directing the senses to outward objects, and exciting consciousness of the impression produced on them by those objects." He refers, of course, principally to the sense of sight. But the ear is not to be neglected. "When sounds are produced so as to be heard by the child, and its consciousness of the impression which these sounds make on its mind through the sense of hearing is aroused, this, to the child, is just as much observation, as when objects are placed before its eyes, and consciousness is awakened by the impression which the objects make on the sense of sight. By the aid of his spelling book, therefore, the child's ear is to be familiarized with the series of elementary sounds which constitutes the foundation of a knowledge of language, just as it is to be made acquainted with visible objects by the aid of his Book for Mothers.

According to this, observation would mean every impression which the mind receives through the eye and the ear.

Does Pestalozzi exclude the remaining senses? No; for he frequently speaks of the impressions of the *five* senses, and he says that the understanding collects the impressions which the senses receive from external nature into a whole, or into a notion, and then develops this idea until it attains clearness. And elsewhere he says that the mechanical form of all instruction should be regulated by the eternal laws according to which the human mind rises from the perceptions of sense to clear notions.

Pestalozzi repeatedly dwells upon this process of intellectual development.

Above every thing, he will have attention given to the first step in the process, namely observation. Care is to be taken that the objects are seen separately by the children, not dimly at a distance, but close at hand and distinctly; then also that there shall be placed before the children, not abnormal, but characteristic specimens of any class

of objects—such as will convey a correct idea of the thing and of its most important properties. Thus, for example, a lame, one-eyed, or six-fingered man, he says, would not be proper to convey the idea of the human form.

Out of the observation of an object, the first thing that arises, he says, is the necessity of naming it; from naming it, we pass on to determining its properties, that is to description; out of a clear description is finally developed the definition—the distinct idea of the object. The full maturity of this, the last fruit of all instruction, depends materially on the vigorous germination of the seed sown in the first instance—on the amount of wisdom exercised in guiding the children to habits of observation. Definitions not founded on observations, he says, produce a superficial and unprofitable kind of knowledge.

Just when we begin to think that we understand Pestalozzi's views, he again leads us into uncertainty as to the idea which he attaches to observation.

He says the idea had only lately struck him, "that all our knowledge arises out of number, form, and words." On this triple basis, he says, education must proceed; and—

"1. It must teach the children to look attentively at every object which they are made to perceive as unity, that is, as separated from those other objects with which it appears in connection.

2. It must make them acquainted with the form of every object, that is, its size and proportion.

3. It must teach them as early as possible the names and words applicable to all the objects with which they are acquainted."

Pestalozzi found it difficult, however, to answer the question, "Why are not all the other properties which the five senses enable us to perceive in objects, just as much elements of our knowledge, as number, form, and name?" His answer is, "All possible objects have necessarily number, form, and name; but the remaining properties which the senses enable us to perceive are not possessed by any object in common with all others, but this property is shared with one object, and that with another."

When Pestalozzi made form a category to embrace all and every thing, he only thought of the visible, as is evidenced by the further development of his instruction in form, which deals chiefly with the measuring of visible objects.

But there are innumerable observations which have nothing whatever to do with form and number; for example, tasting honey, smelling roses, &c.

The prominence which Pestalozzi gave to form and number caused him to undertake a new treatment of the subjects of geometry and arithmetic. Subsequently he divided geometry into instruction in form and instruction in spaces, for the reason that we perceive shape and size, (mathematical quality and quantity,) independently of each other; drawing he made a part of the instruction in form—writing a part of drawing.

But what became of Pestalozzi's principle, that observation is the foundation of all intelligence, when he thus gave an undue prominence to form and number, and neglected all other properties? Suppose that we put a glass cube into the hands of a child and he observes in respect to it nothing else, but that it has the cubic form, and, over and above this, that it is *one* cube,—so far this glass cube is in no way distinguished from a wooden one. But if I require to take notice of other properties, such as color, transparency, weight, &c., in order that I may form a correct idea of the glass cube, as a separate object, and so describe it that it shall be distinguished with certainty from every other cube,—then I must fix my attention, not only on form and number, but on all apparent properties, as elements in a complete observation.

Lastly, language itself has nothing to do with observation. Why should I not be able to form a perfectly correct notion of an object that has no name—for instance a newly-discovered plant? Language only gives us the expression for the impressions of the senses; in it is reflected the whole world of our perceptions. "It is," as Pestalozzi rightly observes, "the reflex of all the impressions which nature's entire domain has made on the human race." But what does he go on to say? "Therefore I make use of it, and endeavor, by the guidance of its uttered sounds, to reproduce in the child the self-same impressions which, in the human race, have occasioned and formed these sounds. Great is the gift of language. It gives to the child in one moment what nature required thousands of years to give man."

In that case, every child would be a rich heir of antiquity, without the trouble of acquisition; words would be current notes for the things which they designate. But both nature and history protest against payment in such currency, and give only to him that hath. Does not Pestalozzi himself repeatedly protest against this very thing? "The christian people of our quarter of the world, (he says,) have sunk into these depths, because in their lower school establishments the mind has been loaded with a burden of empty words, which has not only effaced the *impressions of nature*, but has even destroyed the inward susceptibility for such impressions."

Pestalozzi's further treatment of the instruction in language clearly proves that, contrary to his own principles, he really ascribed a magical power to words—that he put them more or less in the place of observation—and, (to speak with a figure,) that he made the reflected image of a thing equal to the thing itself.

As this error of Pestalozzi's is of the greatest consequence, I will examine it more closely. In the instruction in language, he begins with lessons on sounds; these are followed by lessons on words; and these again by lessons on language.

I. Lessons on Sounds.—"The spelling book, (says Pestalozzi,) must contain the entire range of sounds of which the language consists, and portions of it should be repeated daily in every family, not only by the child that is going through the exercises to learn how to spell, but also by mothers, within hearing of the child in the cradle, in order that these sounds may, by frequent repetition, be so deeply impressed upon the memory of the child, even while it is yet unable to pronounce a single one of them, that they shall never be forgotten. No one imagines to what a degree the attention of infants is aroused by the repetition of such simple sounds as ba, ba, ba, da, da, da, ma, ma, ma, la, la, la, &c., or what a charm such repetition has for them."

And so the child in the cradle is to have no rest from elementary teaching; the cradle songs sung to it are to consist of such delightful bawling and bleating as ba, ba, ba, &c., which might well scare away the child's guardian angels.

As soon as the child begins to talk, it is to "repeat some sequences of these sounds every day;" then follow exercises in spelling.

II. "Lessons in Words, or rather, Lessons in Names."—According to Pestalozzi, "all the most important objects in the world are brought under the notice of the child in the Book for Mothers."

"Lessons in names consist in giving the children lists of the names of the most important objects in all three kingdoms of nature, in history, in geography, and in the pursuits and relations of mankind. These lists of words are placed in the hands of the child, merely as exercises in learning to read, immediately after he has gone through his spelling book; and experience has shown me that it is possible to make the children so thoroughly acquainted with these lists of words, that they shall be able to repeat them from memory, merely in the time that is required to perfect them in reading: the gain of what at this age is so complete a knowledge of lists of names so various and comprehensive, is immeasurable, in facilitating the subsequent instruction of the children."

Here again it is not even remotely hinted that the children ought to know the things named; words, mere words, are put in the place of observation.

3. Lessons in Language.—The highest aim of language, according to Pestalozzi's idea, is to lead us from dim perceptions to clear notions, and that by the following process:—

1. "We acquire a general knowledge of an object, and name it as unity, as an object.

2. We gradually become conscious of its distinguishing qualities, and learn how to name them.

3. We receive through language the power of designating these qualities of the objects more precisely by means of verbs and adverbs."

The first step in this process is, as we have seen, the object of the Pestalozzian lessons in names; but, when viewed more closely, the lessons are found to consist, not in the naming of objects arising out of knowing them, but in the names for their own sake.

In reference to the second operation, when Pestalozzi writes on the black-board the word "eel," and adds the qualities, "slippery, worm-shaped, thick-skinned," the children by no means become conscious of the distinguishing qualities of an eel, and learn to name them, through observing an eel; they rather get adjectives to the noun "eel." Of the process by which these adjectives arise from the observation of the qualities which they express, there is again nothing said.

This neglect of observation is still more striking, when Pestalozzi, further on, classifies what is to be learned under the following heads:

1. Geography. 3. Physics. 5. Physiology.
2. History. 4. Natural History.

Each of these five heads he divides again into forty subdivisions, so that he makes two hundred subdivisions. He now proceeds to give lists of words in all these subjects in alphabetical order, which lists are to be impressed upon the childrens' memories, "till it is impossible they should be forgotten." Afterward, this alphabetical nomenclature is to be transformed into a "scientific" one. "I do not know, (says Pestalozzi,) whether it is necessary to illustrate the matter further by an example; it appears to me almost superfluous: nevertheless, I will do so, on account of the novelty of form. *E. G.* One of the subdivisions of Europe is Germany: the child is first of all made well acquainted with the division of Germany into ten circles, so that he shall not be able to forget it; then the names of the towns of Germany are placed before him, at first in mere alphabetical order for him to read, but each of these towns is previously marked with

the number of the circle in which it lies. As soon as the child can read the names of the towns fluently, he is taught the connection of the numbers with the subdivisions of the main heads, and in a few hours he is able to determine the place of the entire number of German towns in these subdivisions. For example, suppose the names of the following places in Germany are set before him, marked by numbers:—

Aachan, (Aix-la-Chapelle,) 8.	Allenbach, 5.	Altensalza, 10.
Aalen, 3.	Allendorf, 5.	Altkirchen, 8.
Abenberg, 4.	Allersperg, 2.	Altona, 10.
Aberthan, 11.	Alschaufen, 3.	Altorf, 1.
Acken, 10.	Alsleben, 10.	Altranstädt, 9.
Adersbach, 11.	Altbunzlau, 11.	Altwasser, 13.
Agler, 1.	Altena, 8.	Alkerdissen, 8.
Ahrbergen, 10.	Altenau, 10.	Amberg, 2.
Aigremont, 8.	Altenberg, 9.	Ambras, 1.
Ala, 1.	Altenburg, 9.	Amöneburg, 6.
		Andernach, 6.

He reads them all in the following manner:—

Aachen lies in the Westphalian circle;

Abenberg in the Franconian circle;

Acken in the Lower Saxony circle; and so on.

In this manner the child is evidently enabled, at first sight of the number or mark referring to the subdivisions of the main head, to determine the place of each word of the list in the scientific classification of the subject, and thus, as I before said, to change the alphabetical into a scientific nomenclature."

It is quite unnecessary to give a refutation of these views.*

Further on in the book, there follow some directions "how to explain more fully to the pupil the nature, qualities, and functions of all the objects with which the lessons in names have made him acquainted, and which have already been explained to him, to a certain extent, by placing their qualities side by side with their names." For this purpose, the mother is to read to the child certain sentences, and the child is to repeat them after her. Many of these sentences would be quite unintelligible to a child; for instance, "The creditor desires payment," "The right must be maintained." They are mere exercises in reading, not based in the slightest degree on observation.

We have seen that Pestalozzi fixed his attention chiefly on the principle that instruction must be based on observation, out of which the clear idea is at last developed. He says that we are dazzled by the charm of a language, "which we speak without having any real

* Observe, too, how Pestalozzi has taken the names of any obscure places that occurred to him at the moment, such as *Abertham, Ala*, &c. Out of the 31 places whose names are given, five at most would deserve to be included in a school geography. Not a word is said about maps.

knowledge of the ideas conveyed by the words which we allow to run through our mouths." He combats "all scientific teaching which is analyzed, explained, and dictated by men who have not learnt to think and speak in harmony with the laws of nature," whose "definitions must be conjured into the soul like a *deus ex machinâ*, or must be blown into the ears as by stage-prompters;" the effect of which is that men "sink into a miserable mode of education, fit only for forming play-actors." He speaks with great warmth against "definitions not founded on observation." "A definition, (he says,) is the simplest expression of clear ideas, but for the child it contains truth only in so far as he has a clear and comprehensive view of the groundwork of observation on which these ideas are based; whenever he is left without the greatest clearness in the observation of a natural object which has been defined to him, he only learns to play with words like so many counters, deceives himself, and places a blind belief in sounds which will convey to him no idea, nor give rise to any other thought, except just this, that he has uttered certain sounds.*

Hinc illæ lacrymæ.

These excellent principles can not receive too much attention; but if Pestalozzi's own method of instruction be squared by them, it will be found to run quite counter to them. He begins, not with observations, but with words; with him, substantives stand in the place of the observation of objects, adjectives in the place of the observation of the properties of objects. His polemic against empty word-wisdom hits therefore his own method of instruction. Fichte says very truly in regard to Pestalozzi's idea: "In the field of objective knowledge, which relates to external objects, the acquaintance with the literal sign that represents the clearness and definiteness of the knowledge, adds nothing whatever for the student himself; it only heightens the value of the knowledge with reference, to its communication to others, which is a totally different matter. The clearness of such knowledge can result only from observation, and that which we can at pleasure reproduce in all its parts, just as it really is, in the imagination, is perfectly known, whether we have a word for it or not.

We are even of the opinion that this perfection of observation

* Pestalozzi also shows briefly and truly that none but those who have a thorough knowledge of a subject can possibly give a real explanation of it in words. "If I have not a clear perception of a thing," he says, "I can not say with certainty what its attributes are, much less what it is; I can not even describe it, much less define it. If then a third person puts into my mouth the words by means of which some other person, who had a clear conception of the thing, makes it intelligible to people of his own stamp, it is not on this account any clearer to me; but it is clear to the other person and not to me so long as the words of this person are not for me what they are for him: the definite expression of the full clearness of an idea."

should precede the acquaintance with the literal sign, and that the opposite way leads directly to that world of fog and shadows, and to that early use of the tongue, both of which are so justly hateful to Pestalozzi; nay even, that he who is only concerned to know the word at the earliest possible moment, and who deems his knowledge complete so soon as he knows it, lives precisely in that world of fog, and is only concerned for its extension."

We should have expected from Pestalozzi some directions, first, how to exercise the senses of children, and cultivate in them the power of rapidly arriving at clear conceptions of objects; second, how we should teach them to express in language the impressions of their senses—to translate their mute observations into words.

But Pestalozzi does give some hints, particularly as to the method in which instruction in natural history should be imparted. We must not allow the child to go into the woods and meadows, in order to become acquainted with trees and plants. "Trees and plants, (he says,) do not there stand in the order best adapted to make the character of each class apparent, and to prepare the mind by the first impressions of the objects for a general acquaintance with this department of science. It would make me too far away from my purpose, were I to refute this excessive pedantry of method, (with the best will in the world, I can find no better word for it,) against which every mind that has any degree of freshness, and is alive to the beauties of nature, will at once rise up in condemnation.

But, though nothing further is said, in the work before us, on the education of the senses, and the instruction in language connected therewith, Pestalozzi refers us to his "Book for Mothers," for more on these points. His principle, that the learning of a child must commence with what lies near to it, appears to have led him to the idea, that no natural object lay nearer to a child than its own body, and that therefore it should commence by observing that. The Book for Mothers describes the body, with all its limbs and parts of limbs, down to the minutest joints. Few persons, (I do not speak of surgeons,) are so well acquainted with the structure of the body as the child is to be made. Few people will understand, for instance, the following description: "The middle bones of the index finger are placed outside, on the middle joints of the index finger, between the back and middle members of the index finger," &c. The mother is to go through the book, word for word, with the child, making constant reference to the child's own body.

It was a great mistake on the part of Pestalozzi, to select the child's body as the first object on which it should exercise its faculties

of sight and speech, and, generally, the so-called exercises in observation employed by Pestalozzi and his school, ought properly to be regarded as exercises in reading, in which the object is far more to make the children acquainted with words and sentences than to give them distinct and lasting impressions, and a real knowledge of the thing spoken of. He who yesterday saw a man, with whose image he was so strongly impressed that he can to-day depict it from his inward conception—he who to-day can correctly sing from memory a melody which he heard yesterday—he who yesterday smelt vinegar, and to-day feels the water gather in his mouth at the recollection of the smell—gives proof of his observation by the conception which he has formed, even though he does not translate that conception into words. The generality of the exercises of Pestalozzi and his followers never produced such an imagination of perceptions as this.

Toward the conclusion of the work, Pestalozzi asks himself: "How does the question of religion stand with relation to the principles which I have adopted as true in regard to the development of the human race in general?"

It is difficult to follow him in his answer to this question. Every thing that is lofty in man is founded, according to him, in the relationship which subsists between the infant and its mother. The feelings of gratitude, confidence and love in the child toward the mother gradually unfold themselves, and are, at a later period, transferred by the child, on the admonition of the mother, to God. This, with Pestalozzi, is the *only* way of training the child in religion. It presupposes a mother pure as an angel, and a child originally quite innocent. The mother is also, like a saint, to take the child under her wings, when it grows up and is enticed to evil by the world, which is not innocent, "as God first created it." According to this view, motherless orphans must remain entirely without religious training. There is scarcely a word about the father; just once he is mentioned, and then it is said that he is "tied to his workshop," and can not give up his time to the child.

In short, the mother is represented as the mediator between God and the child. But not once is it mentioned that she herself needs a mediator; not once in the whole book does the name of Christ occur. It is nowhere said that the mother is a christian mother, a member of the church, and that she teaches the child what she, as a member of the church, has learnt. Holy writ is ignored; the mother draws her theology out of her own heart. There pervades this work therefore a decided alienation from Christ. But we shall afterward see

that it would be unjust to measure Pestalozzi's ideas on religious instruction by the untenable theory brought forward in the last chapters of this work.

Having thus considered the contents of this book, which was written and had its origin in Burgdorf, which contains fundamental educational principles of the highest value and importance, side by side with the most glaring educational blunders and absurdities, it will be of the greatest interest to hear how Pestalozzi performed his work as a teacher, and as the director of his institution, in Burgdorf. We shall obtain information on this point from a small but in many respects highly interesting and valuable pamphlet, entitled "A Short Sketch of my Educational Life, by John Ramsauer."* The writer, who was the son of a tradesman, and was born in 1790 at Herisau in the Swiss canton of Appenzell, migrated thence in 1800, along with forty-four other children from ten to fourteen years of age, at a time when several cantons, Appenzell among the rest, had been totally desolated in consequence of the French revolution; and he came thus to Schleumen, not far from Burgdorf. While at Schleumen, he attended the lower burgh school of Burgdorf, in which, as already stated, Pestalozzi taught. He gives the following account of Pestalozzi's teaching:—

"I got about as much regular schooling as the other scholars, namely, none at all; but his, (Pestalozzi's,) sacred zeal, his devoted love, which caused him to be entirely unmindful of himself, his serious and depressed state of mind, which struck even the children, made the deepest impression on me, and knit my childlike and grateful heart to his forever.

It is impossible to give a clear picture of this school as a whole; all that I can do is to sketch a few partial views.

Pestalozzi's intention was that all the instruction given in this school should start from form, number, and language, and should have a constant reference to these elements. There was no regular plan in existence, neither was there a time-table, for which reason Pestalozzi did not tie himself down to any particular hours, but generally went on with the same subject for two or three hours together. There were about sixty of us, boys and girls, of ages varying from eight to fifteen years; the school-hours were from 8 till 11 in the morning, and from 2 to 4 in the afternoon. The instruction which we received was entirely limited to drawing, ciphering, and exercises in language. We neither read nor wrote, and accordingly we had neither reading nor writing books; nor were we required to commit to memory any thing secular or sacred.

For the drawing, we had neither copies to draw from nor directions what to draw, but only crayons and boards; and we were told to draw "what we liked" during the time that Pestalozzi was reading aloud sentences about natural history, (as exercises in language.) But we did not know what to draw, and so it happened that some drew men and women, some houses, and others strings, knots, arabesques, or whatever else came into their heads. Pestalozzi never looked to see *what* we had drawn, or rather scribbled; but the clothes of all the scholars, especially the sleeves and elbows, gave unmistakable evidence that they had been making due use of their crayons.

For the ciphering, we had between every two scholars a small table

* When Pestalozzi himself speaks of his teaching, he is too apt to mix up what he intended with what he really effected.

pasted on mill-board, on which in quadrangular fields were marked dots, which we had to count, to add together, to subtract, to multiply, and divide by one another. It was out of these exercises that Krüsi and Buss constructed, first, the Unity Table, and afterward the Fraction Tables. But, as Pestalozzi only allowed the scholars to go over and to repeat the exercises in their turns, and never questioned them nor set them tasks, these exercises, which were otherwise very good, remained without any great utility. He had not sufficient patience to allow things to be gone over again, or to put questions; and in his enormous zeal for the instruction of the whole school, he seemed not to concern himself in the slightest degree for the individual scholar.

The best things we had with him were the exercises in language, at least those which he gave us on the paper-hangings of the school-room, and which were real exercises in observation. These hangings were very old and a good deal torn, and before these we had frequently to stand for two or three hours together, and say what we observed in respect to the form, number, position and color of the figures painted on them, and the holes torn in them, and to express what we observed in sentences gradually increasing in length. On such occasions, he would say: "Boys, what do you see?" (He never named the girls.)

Answer. A hole, (or rent,) in the wainscoat.

Pestalozzi. Very good. Now repeat after me:—

I see a hole in the wainscoat.
I see a long hole in the wainscoat.
Through the hole I see the wall.
Through the long narrow hole I see the wall.

Pestalozzi. Repeat after me:—

I see figures on the paper-hangings.
I see black figures on the paper-hangings.
I see round black figures on the paper-hangings.
I see a square yellow figure on the paper-hangings.
Besides the square yellow figure, I see a black round figure.
The square figure is joined to the round one by a thick black stroke.

And so on.

Of less utility were those exercises in language which he took from natural history, and in which we had to repeat after him, and at the same time to draw, as I have already mentioned. He would say:—

Amphibious animals.	Crawling amphibious animals.
	Creeping amphibious animals.
Monkeys.	Long-tailed monkeys.
	Short-tailed monkeys.

And so on.

We did not understand a word of this, for not a word was explained, and it was all spoken in such a sing-song tone, and so rapidly and indistinctly, that it would have been a wonder if any one had understood any thing of it, and had learnt any thing from it; besides, Pestalozzi cried out so dreadfully loud and so continuously, that he could not hear us repeat after him, the less so as he never waited for us when he had read out a sentence, but went on without intermission and read off a whole page at once. What he thus read out was drawn up on a half-sheet of large-sized mill-board, and our repetition consisted for the most part in saying the last word or syllable of each phrase, thus "monkeys—monkeys," or "keys—keys." There was never any questioning or recapitulation.

As Pestalozzi in his zeal, did not tie himself to any particular time, we generally went on till eleven o'clock with whatever he had commenced at eight, and by ten o'clock he was always tired and hoarse. We knew when it was eleven by the noise of other school children in the street, and then usually we all ran out without bidding good-bye.

Although Pestalozzi had at all times strictly prohibited his assistants from using any kind of corporal punishment, yet he by no means dispensed with it himself, but very often dealt out boxes on the ears right and left. But most of the scholars rendered his life very unhappy, so much so that I felt a real sympathy for him, and kept myself all the more quiet. This he soon observed, and many a time he took me for a walk at eleven o'clock, for in fine weather he went every day to the banks of the river Emme, and for recreation and amusement looked for different kinds of stones. I had to take part in this occupation

myself, although it appeared to me a strange one, seeing that millions of stones lay there, and I did not know which to search for. He himself was acquainted with only a few kinds, but nevertheless he dragged along home from this place every day with his pocket and his pocket handkerchief full of stones, though after they were deposited at home, they were never looked at again. He retained this fancy throughout his life. It was not an easy thing to find a single entire pocket handkerchief in the whole of the institution at Burgdorf, for all of them had been torn with carrying stones.

There is one thing which, though indeed unimportant, I must not forget to mention. The first time that I was taken in to Pestalozzi's school he cordially welcomed and kissed me, then he quickly assigned me a place, and the whole morning did not speak another word to me, but kept on reading out sentences without halting for a moment. As I did not understand a bit of what was going on, when I heard the word "monkey, monkey," come every time at the end of a sentence, and as Pestalozzi, who was very ugly, ran about the room as though he was wild, without a coat and without a neck-cloth, his long shirt-sleeves hanging down over his arms and hands, which swung negligently about, I was seized with real terror, and might soon have believed that he himself was a monkey. During the first few days too, I was all the more afraid of him, as he had, on my arrival, given me a kiss with his strong, prickly beard, the first kiss which I remembered having received in my life.

Ramsauer does not relate so much about the instruction given by the other teachers. Among the fruits of their instruction were two of the three elementary works which appeared in 1803, under Pestalozzi's name: (1.) "The ABC of Observation, or Lessons on the Relations of Size," (2.) "Lessons on the Relations of Number." (3.) The third elementary work alone was written by Pestalozzi himself; it is the one already mentioned, the "Book for Mothers, or Guide for Mothers in teaching their children to observe and speak."

The institution at Burgdorf attracted more and more notice; people came from a distance to visit it, induced particularly by Pestalozzi's work, "How Gertrude teaches her children." M. Decan Ith, who was sent by the Helvetian government in 1802, to examine the institution, made a very favorable report on it, in consequence of which the government recognized it as a public institution, and granted small salaries to the teachers out of the public funds.

But that government was dissolved by Napoleon the very next year, and the constitution of the cantons restored. The Bernese government now fixed on the castle of Burgdorf, as the seat of one of the chief magistrates of the canton; and Pestalozzi had to clear out of it, on the 22d of August, 1804.

In 1802, during Pestalozzi's stay at Burgdorf, Napoleon required the Swiss people to send a deputation to him at Paris. Two districts chose Pestalozzi as a deputy. Before his departure, he published a pamphlet, entitled "Views on the Objects to which the Legislature of Helvetia has to direct its attention." He put a memorandum on the wants of Switzerland into the hands of the First Consul, who paid as little attention to it as he did to Pestalozzi's educational efforts, declaring that he could not mix himself up with the teaching of the ABC.

The Bernese government gave up the monastery of Buchsee to Pestalozzi for his institution, and had the building properly arranged for him. Close by Buchsee lies the estate of Hofwyl, where Fellenberg resided, and to whom the teachers gave the principal direction of the institution, "not without my consent," says Pestalozzi, "but to my profound mortification."

Notwithstanding, Pestalozzi allows Fellenberg to have possessed in a high degree the talent of governing. In Fellenberg the intellect predominated, as in Pestalozzi the feelings; in the institution at Buchsee, therefore, "that love and warmth was missing which, inspiring all who came within its influence, rendered every one at Burgdorf so happy and cheerful: at Buchsee every thing was, in this respect, totally different. Still Buchsee had this advantage, that in it more order prevailed, and more was learned than at Burgdorf."

Pestalozzi perceived that his institution would not become independent of Fellenberg, so long as it should remain at Buchsee, and he gladly accepted, therefore, a highly advantageous proposal on the part of the inhabitants of Yverdun, that he should remove his institution to their town. He repaired thither, with some of his teachers and eight pupils; half a year later, the remaining teachers followed, having, as Pestalozzi remarks, soon found the government of Fellenberg far more distasteful than the want of government, under him, had ever been to them.

We now enter on a period when Pestalozzi and his institution acquired a European reputation, when Pestalozzian teachers had schools in Madrid, Naples, and St. Petersburg, when the emperor of Russia gave the venerable old man a personal proof of his favor and esteem, and when Fichte saw in Pestalozzi and his labors the commencement of a renovation of humanity.

But to write the history of this period is a task of unusual difficulty. On one side stand extravagant admirers of Pestalozzi, on the other bitter censurers; a closer examination shows us that both are right, and both wrong. A fearful dissension arises, in the institution itself, among the teachers; at the head of the two parties stand Niederer and Schmid, who abuse each other in a manner unheard of. With which party shall we side; or shall we side with neither, or with both?

If we ask to which party Pestalozzi inclined, or whether he held himself above the parties, and then go entirely according to his judgment, our embarrassment will only be increased. He pronounced a very different opinion on the same man at different times: at one time he saw in him a helping angel, before whom he humbled himself

more than was seemly, and from whom he expected every benefit to his institution; at another time, he saw in him an almost fiendish being, who was only bent on ruining the institution.

If any fancy that they have a sure source of information in the account drawn up by Pestalozzi and Nieder, and published in 1807, namely, the "Report on the State of the Pestalozzian Institution, addressed to the Parents of the Pupils and to the Public;" they will be undeceived by some remarks which Pestalozzi himself added to that report at a later period, in the collected edition of his works, but still more so in, "The Fortunes of my Life." This work is altogether at variance with those which give a high degree of praise to the Pestalozzian Institution, in its former condition. From the year in which the dispute between Niederer and Schmid, broke out, (1810,) most of those who give any information on the subject range themselves on Niederer's side; while Pestalozzi himself, from the year 1815 till his death, holds unchangeably with Schmid.

I should despair of ever being able to thread my way in this labyrinth with any degree of certainty, were it not for the fact that I resided some time in the institution, namely, from October, 1809, till May, 1810, and there became more intimately acquainted with persons and circumstances than I could otherwise have been.

A friend, (Rudolph von Przystanowski,) accompanied me to Yverdun, where we arrived toward the end of October. It was in the evening of a cold rainy day that we alighted at the hotel called the Red House. The next morning we went to the old castle, built by Charles the Bold, which with its four great round towers incloses a courtyard. Here we met a multitude of boys; we were conducted to Pestalozzi. He was dressed in the most negligent manner: he had on an old grey overcoat, no waistcoat, a pair of breeches, and stockings hanging down over his slippers; his coarse bushy black hair uncombed and frightful. His brow was deeply furrowed, his dark brown eyes were now soft and mild, now full of fire. You hardly noticed that the old man, so full of geniality, was ugly; you read in his singular features long continued suffering and great hopes.

Soon after, we saw Niederer,* who gave me the impression of a young Roman Catholic priest; Krüsi,* who was somewhat corpulent, fair, blue-eyed, mild and benevolent; and Schmid,* who was, if possible, more cynical in his dress than Pestalozzi, with sharp features and eyes like those of a bird of prey.

At that time 137 pupils, of ages varying from six to seventeen

* A biographical sketch of Niederer, Krüsi, and Schmid, will be given at the close of the life of Pestalozzi.—Ed.

years, lived in the institution; 28 lodged in the town, but dined in the institution. There were in all, therefore, 165 pupils. Among them there were 78 Swiss; the rest were Germans, French, Russians, Italians, Spaniards, and Americans. Fifteen teachers resided in the institution, nine of whom were Swiss teachers, who had been educated there. Besides these, there were 32 persons who were studying the method: seven of them were natives of Switzerland. The interior of the building made a mournful impression on me; but the situation was extremely beautiful. An extensive meadow separates it from the southern end of the glorious lake of Neufchâtel, on the west side of which rises the Jura range of mountains, covered with vineyards. From the heights of the Jura, above the village of Granson, rendered famous by the defeat of Charles the Bold, you survey on the one side the entire chain of the Alps, from Mount Pilatus, near Lucerne, to Mount Blanc; on the other side you see far away into France.

A short time after my arrival, I went to live in the institution, where I took my meals, and slept along with the children. If I wanted to do any work for myself, I had to do it while standing at a writing desk in the midst of the tumult of one of the classes. None of the teachers had a sitting-room to himself. I was fully determined to devote all my energies thenceforth to the institution, and accordingly I had brought with me Freddy Reichardt, the brother of my future wife, a boy of eight years, and now placed him among the other scholars. My position was well suited to enable me to compare the reports on the institution with what I daily saw and experienced. The higher my expectations had been raised by that report, the deeper was my pain, as I was gradually undeceived; I even thought I saw the last hopes of my native land disappear.

It is scarcely necessary for me to particularize the respects in which I was undeceived; they may be learnt from Pestalozzi's notes to the latter copy of his report, but especially from his work, "The Fortunes of my Life." Nevertheless I will advert to one or two principal points.

I will particularly advert to what is said in the report about the spirit of the institution, which is represented as being similar to that which pervades a family.

"We may with a good conscience, declare publicly, that the children in our institution are happy and cheerful; that their innocence is preserved, their religious disposition cherished, their mind formed, ther knowledge increased, their hearts elevated. The arrangements which have been adopted for attaining these objects possess a quiet inward power. They are based principally on the benevolent and amiable character which distinguishes the teachers of our house, and which is supported by a vigorous activity. There reigns throughout the entire institution the spirit of a great domestic union, in which, according to the requirements of such a union, a pure paternal and fraternal feeling every where

shines forth. The children feel themselves free, their activity finds even a powerful charm in their employments; the confidence reposed in them, and the affection shown toward them, elevate their sentiments." "The life in the house is, to a rare extent, a school for cultivating domestic affection and domestic unity." "All the teachers in common, acting as an organized whole, do for all the children what a careful mother does for the few children of her own family." The body of teachers "attains the most perfect unity of thought and action, and appears to the children as only one person."

"In general, it is to be remarked that we seek throughout to awaken and to foster the spirit of peace, of love, and of mutual brotherly fellowship. The disposition of the great body of our inmates is good. A spirit of strength, of repose, and of endeavor rests on the whole. There is much in our midst that is eminently good. Some pupils evince an angelic disposition, full of love and of a presentiment of higher thoughts and a higher existence. The bad ones do not feel themselves comfortable in the midst of our life and labor; on the other hand, every spark of good and noble feeling which still glimmers even in the bad ones encouraged and developed. The children are in general neither hardened by punishment, nor rendered vain and superficial by rewards. The mild forbearance of the most amiable household has the most undisturbed play in our midst. The children's feelings are not lightly wounded. The weak are not made to compare themselves with the strong, but with themselves. We never ask a pupil if he can do what another does. We only ask him if he can do a thing. But we always ask him if he can do it perfectly. As little of the struggle of competition takes place between one pupil and another, as between affectionate brothers and sisters who live with a loving mother in a happy condition."

"We live together united in brotherly love, free and cheerful, and are, in respect to that which we acknowledge as the one thing needful, one heart and one soul. We may also say that our pupils are one heart and one soul with us. They feel that we treat them in a fatherly manner; they feel that we serve them, and that we are glad to serve them; they feel that we do not merely instruct them; they feel that for their education we give life and motion to every thing in them that belongs to the character of man. They also hang with their whole hearts on our actions. They live in the constant consciousness of their own strength."

Must not even a sober reader of these passages be led to believe that a spirit of the most cordial love and concord reigned in a rare manner in the Pestalozzian institution. How much more did I believe so, who, deeply distressed by the calamities of those days, and inspired with hope by the eloquence of Fichte, perceived in Yverdun the commencement of a better time, and ardently longed to hasten its approach. Those who did not themselves live through those years of anguish, in which injustice increased and love waxed cold in the hearts of many, may perhaps smile at the enthusiasm of despair.

Pestalozzi himself says of the institution that, as early as the time when it was removed from Buchsee to Yverdun, it bare within itself "the seeds of its own internal decay, (these are his own words,) in the unequal and contradictory character of the abilities, opinions, inclinations, and claims of its members; although as yet this dissension had done any thing but declare itself general, unrestrained, and fierce." He says, that nevertheless many of the members were still desirous for peace, and that others were moderate in their views and feelings. "But the seeds of our decay had been sown, and though they were still invisible in many places, had taken deep root. Led aside by

worldly temptations and apparent good fortune from the purity, simplicity, and innocence of our first endeavors, divided among ourselves in our inmost feelings, and from the first made incapable, by the heterogeneous nature of our peculiarities of ever becoming of one mind and one heart in spirit and in truth for the attainment of our objects, we stood there outwardly united, even deceiving ourselves with respect to the real truth of our inclination to this union, and unfortunately we advanced, each one in his own manner, with firm and at one time with rapid steps along a path which, without our being really conscious of it, separated us every day further from the possibility of our ever being united.

What Ramsauer says entirely agrees with this. In Burgdorf, he says, there reigned a kindly spirit. "This ceased when the family life was transformed in the institution into a constitutional state existence. Now the individual was more easily lost in the crowd: thus there arose a desire on his part to make himself felt and noticed. Egotism made its appearance every day in more offensive forms. Envy and jealousy rankled in the breasts of many." "Much indeed was said about 'a domestic life,' which ought to prevail in an educational establishment, just as a very great deal was said and written about an 'harmonious development of all the faculties of the pupil;' but both existed more in theory than in practice. It is true, that a good deal of common interest was evinced in the general working of the institution, but the details were allowed to go on or stand still very much as they might, and the tone of the whole house was more a tone of pushing and driving than one of domestic quietude."

In the report is this passage: "In respect to the execution of the design, we may say decidedly, that the institution has stood the fiery ordeal of eight severe years."

On this passage Pestalozzi remarks as follows in 1823: "What is here said in confirmation of this view is altogether a consequence of the great delusion under which we lay at that period, namely, that all those things in regard to which we had strong intentions and some clear ideas, were really as they ought to have been, and as we should have liked to make them. But the consequences of the partial truth which in this instance had hold of our minds were, from want of sufficient knowledge, ability, and skill for carrying it out, fixed in our midst, confused, and made the seed of countless weeds, by which the good seed that lay in the ground was on all sides crowded, and here and there choked. Neither did we perceive the weeds at that time; indeed, as we then lived, thought, acted, and dreamt, it was impossible that we should perceive them."

I am fully aware that by some these later observations of Pestalozzi have been attributed partly to the weakness of old age, partly to the influence of Schmid. To this I can not assent. As early as new year's day, 1808, at the same time as the report appeared, Pestalozzi said to his teachers:

"My work was founded in love; love vanished from our midst; it could not but vanish. We deceived ourselves as to the strength which this love demands; it could not but vanish. I am no longer in a position to provide any help for it. The poison which eats into the heart of our work is accumulating in our midst. Worldly honor will increase this poison. O God, grant that we may no longer be overcome by our delusion. I look upon the laurels which are strewn in our path as laurels set up over a skeleton. I see before my eyes the skeleton of my work, in so far as it is my work. I desire to place it before your eyes. I saw the skeleton which is in my house appear crowned with laurels before my eyes, and the laurels suddenly go up in flames. They can not bear the fire of affliction which must and will come upon my house; they will disappear; they must disappear. My work will stand. But the consequences of my faults will not pass away. I shall be vanquished by them. My deliverance is the grave. I go away, but you remain, Would that these words now stood before your eyes in flames of fire!—Friends, make yourselves better than I was, that God may finish his work through you, as he does not finish it through me. Make yourselves better than I was. Do not by your faults lay those same hindrances in your way that I have lain in mine. Do not let the appearance of success deceive you, as it deceived me. You are called to higher, to general sacrifice, or you too will fail to save my work. Enjoy the passing hour, enjoy the fullness of worldly honor, the measure of which has risen for us to its greatest height; but remember that it vanishes like the flower of the field, which blooms for a little while, but soon passes away."

What contradictions! Does then the same fountain send forth both sweet and bitter? Was the report actually intended to deceive the world?

Never; but Pestalozzi was not entirely free from an unfortunate spirit of worldly calculation, although his calculations in most cases turned out incorrect. Ever full of the idea of spreading happiness over many lands, in a short time, by means of his methods of instruction and education, he naturally considered it all-important that people should have a good opinion of his institution. By the bulk of the public, indeed, the institution was taken as substantial evidence for or against the excellence and practicability of his educational ideas: with it they stood or fell.

The concern which Pestalozzi felt about the reputation of his establishment became especially apparent when foreigners, particularly persons of distinction, visited Yverdun.

"As many hundred times in the course of the year," says Ramsauer, "as foreigners visited the Pestalozzian Institution, so many hundred times did Pestalozzi allow himself, in his enthusiasm, to be deceived by them. On the arrival of every fresh visitor, he would go to the teachers in whom he placed most confidence and say to them: 'This is an important personage, who wants to become acquainted with all we are doing. Take your best pupils and their analysis-books, (copy-books in which the lessons were written out,) and show him what we can do and what we wish to do.' Hundreds and hundreds of times there came to the institution, silly, curious, and often totally uneducated persons, who came because it was the 'the fashion.' On their account, we

usually had to interrupt the class instruction and hold a kind of examination. In 1814, the aged Prince Esterhazy came. Pestalozzi ran all over the house, calling out: 'Ramsauer, Ramsauer, where are you? Come directly with your best pupils to the Red House, (the hotel at which the Prince had alighted.) He is a person of the highest importance and of infinite wealth; he has thousands of bond-slaves in Hungary and Austria. He is certain to build schools and set free his slaves, if he is made to take an interest in the matter.' I took about fifteen pupils to the hotel. Pestalozzi presented me to the Prince with these words: 'This is the teacher of these scholars, a young man who fifteen years ago migrated with other poor children from the canton of Appenzell and came to me. But he received an elementary education, according to his individual aptitudes, without let or hindrance. Now he is himself a teacher. Thus you see that there is as much ability in the poor as in the richest, frequently more; but in the former it is seldom developed, and even then, not methodically. It is for this reason that the improvement of the popular schools is so highly important. But he will show you every thing that we do better than I could. I will, therefore, leave him with you for the present.' I now examined the pupils, taught, explained, and bawled, in my zeal, till I was quite hoarse, believing that the Prince was thoroughly convinced about every thing. At the end of an hour, Pestalozzi returned. The Prince expressed his pleasure at what he had seen. He then took leave, and Pestalozzi, standing on the steps of the hotel, said: 'He is quite convinced, quite convinced, and will certainly establish schools on his Hungarian estates.' When we had descended the stairs, Pestalozzi said: 'Whatever ails my arm? It is so painful. Why, see, it is quite swollen, I can't bend it.' And in truth his wide sleeve was now too small for his arm. I looked at the key of the house-door of the *maison rouge* and said to Pestalozzi; 'Look here, you struck yourself against this key when we were going to the Prince an hour ago.' On closer observation it appeared that Pestalozzi had actually bent the key by hitting his elbow against it. In the first hour afterward he had not noticed the pain, for the excess of his zeal and his joy. So ardent and zealous was the good old man, already numbering seventy years, when he thought he had an opportunity of doing good. I could adduce many such instances. It was nothing rare in summer for strangers to come to the castle four or five times in the same day, and for us to have to interrupt the instruction on their account two, three or four times."

After this highly characteristic account, I ask the reader whether he will cast a stone at the amiable and enthusiastic old man? I certainly will not, though I could heartily have wished that, faithful in small things and mindful of the grain of mustard seed, he had planted his work in stillness, and that it had been slow and sound in its growth, even if it had been observed by only a few.

The source of the internal contradiction which runs through the life of Pestalozzi, was, as we saw from his own confessions, the fact that, in spite of his grand ideal, which comprehended the whole human race, he did not possess the ability and skill requisite for conducting even the smallest village school. His highly active imagination led him to consider and describe as actually existing in the institution whatever he hoped sooner or later to see realized. His hopeful spirit foresaw future development in what was already accomplished, and expected that others would benevolently do the same. This bold assumption has an effect on many, especially on the teachers of the institution. This appears to explain how, in the report on the institution, so much could be said *bonâ fide* which a sober spectator was forced to pronounce untrue.

But this self-delusion is never of long duration; the period of overstrung enthusiasm is followed by one of hopelessness and dejection. The heart of man is indeed an alternately proud and dejected thing! Such an ebb and flow of lofty enthusiasm and utter despair pervades the entire life of Pestalozzi. The address which he delivered to his teachers in 1808 appears almost as the *caput mortuum* of the report: the truth at last makes itself heard in tones of bitter remorse. Pestalozzi makes a more tranquil confession concerning the early times of Yverdun, at a later period of his life, in his autobiography. More than sixteen years had elapsed, and passion had cooled down. He states soberly what he had enthusiastically wished to accomplish in those earlier days; he acknowledges that he had deceived himself and he can now therefore relate the history of the institution clearly and truthfully. But the times less removed from him are still too present to his feelings, too near to his impassioned gaze, for him to be able to delineate them with the same historical clearness in that work.

The report speaks of the instruction imparted in the institution in a way which can not have failed to give offense to persons who were not enthusiastically prejudiced in favor of Pestalozzi. Listen to these remarks:—

"With regard to the subjects of the instruction generally, the following is what may be stated. The child learns to know and exercise himself, that is, his physical, intellectual, moral, and religious faculties. With this instruction to the child about himself, instruction about nature keeps pace. Commencing with the child in his domestic relations, the latter instruction gradually embraces human nature in all the above mentioned aspects. And in the same way, commencing with the circle of the child's observation, it gradually embraces the whole of external nature. From the first starting point, the child is led to an insight into the essential relations of mankind and society; from the second to an insight into the relations in which the human race stands to external nature, and external nature to the human race. Man and nature, and their mutual relation, constitute, therefore, the primary matter of the instruction; and from these subjects the knowledge of all separate branches of study is developed. It must here be remarked, however, that the aim of the instruction is not to make the pupils comprehend man and nature merely externally, that is, merely in so far as they present isolated imperical characteristics, capable of being arranged either in a logical sequence of separate units, or in any other order that may be convenient. The aim is rather to make the pupils observe things as a living and organic whole, harmoniously bound together by necessary and eternal laws, and developing itself from something simple and original, so that we may thus bring them to see how one thing is linked in another. The instruction, as a whole, does not proceed from any theory, but from the very life and substance of nature; and every theory appears only as the expression and representation of this observed life and substance."

I am relieved from the necessity of offering any criticism on this passage by a note which Pestalozzi added to it fifteen years later. "In this and several other passages," says the venerable old man, "I express, not so much my own peculiar views on education in their original simplicity, as certain immature philosophical views, with

which, at that time, notwithstanding all our good intentions, most of the inmates of our house, myself among the rest, must needs perplex our heads, and which brought me personally to a standstill in my endeavors. These views caused the house and the institution, both of which attained at this period a seeming flourishing condition, to go rotten at the roots; and they are to be looked upon as the hidden source of all the misfortunes which have since come upon me."

It would take too long to follow the report in the accounts which it gives of the instruction in the separate branches of knowledge. In every thing Pestalozzi wants to be entirely novel, and just for this reason he falls into mistakes. Take, as a specimen, the following on the instruction in geography:—

"The instruction in this subject begins with the observation of the district in which we live, as a type of what the surface of the earth presents. It is then separated into elementary instruction, which includes physical, mathematical, and political geography, and (2,) the topographical part, in which each of the departments of the subject suggested by the observation of the surrounding district is prosecuted in a graduated course, and their reciprocal bearings brought out. By this foundation, the pupils are prepared for forming a clear and comprehensive view of the earth and man, and their mutual influence on each other, of the condition of states and peoples, of the progress of the human race in intellectual culture, and lastly of physical science in its broader outlines and more general relations. The children are made acquainted with the statistical portion of the subject, that is, the natural productions, the number of inhabitants, form of government, &c., by means of tabular views."

After this, need we wonder when we find Pestalozzi, in his memoirs, speaking of the earlier days of Yverdun in the following manner? "The desire of governing, in itself unnatural, was called forth among us at this period, on the one hand, by the reputation of our modes of instruction, which continued to increase after our return to Yverdun, and the intoxicating good fortune that streamed to nearly every fool who hung out the sign-board of an elementary method which, in reality, did not as yet exist; on the other, by the audacity of our behavior toward the whole world, and toward every thing that was done in education and was not cast in our mould. The thing is melancholy; but it is true. We poor weak birds presumed to take our little nestlings, ere they were fairly out of their shells, on flights which even the strongest birds do not attempt until their young ones have gained strength in many previous trials. We announced publicly things which we had neither the strength nor the means to accomplish. There are hundreds and hundreds of these vain boastings of which I do not like to speak."

No wonder that, in this state of things, there arose a determined opposition to the institution. In Switzerland especially, Pestalozzi says, the public journals began "to speak decidedly against our pretensions, asserting that what we did was by no means what we

considered and represented ourselves to be doing. But, (he continues,) instead of penitently returning to modesty, we sturdily resisted this opposition. While participating in this temerity, which is now incomprehensible to me, I began to be sensible that we were treading in paths which might lead us astray, and that, in truth, many things in the midst of us were not as they should have been, and as we endeavored to make them appear in the eyes of the world."

Other members of the institution thought quite differently; full of self-confidence, they pressed for a formal examination; and in the month of May, 1809, an application to that effect was made to the Swiss Diet, then assembled at Freiburg. The request was granted, and Merian, member of the executive council of Basel; Trechsel, professor of mathematics, at Bern; and Père Girard, of Freiburg, were commissioned by Governor D'Affry to examine the institution.

In November, 1809, just after I had arrived in Yverdun, this commission of inquiry came down and remained five days. They were five sultry days for Pestalozzi and his teachers; it was felt that the commission, which confined itself strictly to actual results, would make no very enthusiastic report. Père Gerard wrote the report in French, Professor Trechsel translated it into German; on the 12th of May, 1810, it was presented to the Diet, then assembled at Solothurn. In the following year, the thanks of the country were accorded to Pestalozzi, by the Diet; and there the matter was allowed to rest.

I believe that the commission pronounced an impartial judgment; the conclusion of the report speaks for the whole. "The educational methods of the institution, (say the commissioners,) stand only in very imperfect connection with our establishments for public instruction. The institution has in no way aimed at coming into harmony with these public schools. Determined at any price to interest all the faculties of children, in order to guide their development according to its own principles, it has taken counsel of its own views only, and betrays an irresistible desire to open for itself new paths, even at the cost of never treading in those which usage has now established. This was perhaps the right means for arriving at useful discoveries, but it was also a design which rendered harmony impossible. The institution pursues its own way; the public institutions pursue theirs; and there is no probability that both ways will very soon meet. It is a pity that the force of circumstances has always driven Mr. Pestalozzi beyond the career which his pure zeal and his fervent charity had marked out for him. A good intention, noble endeavors, indefatigable perseverance, should and will always meet with justice. Let us profit by the excellent ideas which lie at the foundation of the whole

undertaking; let us follow its instructive examples; but let us also lament that an adverse fate must hang over a man, who, by the force of circumstances, is constantly hindered from doing what he would wish to do."

After the publication of the report, there arose a long and violent literary warfare, which did any thing but add to the credit of the institution.* With this war against external foes, was unfortunately associated an internal feud, which ended in the departure of Schmid and others of the teachers.

One of Pestalozzi's biographers states, that Schmid's pride and pretensions had grown to such an extent, that he had acted with the greatest harshness toward Pestalozzi, Niederer, and Krüsi. "This was caused," continues the biographer, "by some ideas which he had partially caught up from two scientific men who were then stopping with Pestalozzi, (one of them is now a man of note in Silesia.) Perhaps at that time these ideas were not very clearly defined in the minds of those men themselves."†

The biographer means me and my friend; I shall therefore not be misunderstood, if I relate briefly the matter to which he refers.

I had come to learn and to render service. On this account, I took up my quarters entirely in the old building of the institution, slept in one of the large dormitories, took my meals with the children, attended the lessons, morning and evening prayers, and the conferences of the teachers. I listened and observed attentively in silence; but I was far from thinking of commencing myself to teach. My opinion upon all the things that I saw and heard was formed very much with reference to the boy of eight years intrusted to my care, accordingly as they contributed to his comfort or otherwise. Several weeks had passed on in this way, when I was one evening with Pestalozzi and the rest of the teachers at the hotel of the Wild Man, where they used to meet I think once a fortnight. After supper, Pestalozzi called me into an adjoining room; we were quite alone. "My teachers are afraid of you," he said, "because you only listen and look on in silence; why do you not teach?" I answered that before teaching, I wished to learn—to learn in silence. After the

* The well-known K. L. von Haller noticed the report of the commission in terms of high praise, in the *Göttingen Literary Advertiser*, of the 13th of April, 1811, and at the same time accused the Pestalozzian Institution of inspiring its pupils with an aversion from religion, the constituted authorities, and the aristocracy. In reply to this, Niederer wrote "The Pestalozzian Institution to the Public." This pamphlet appeared in a new form in 1812, under the title, "Pestalozzi's Educational Undertaking in relation to the Civilization of the Present Time." Bremi, of Zurich, wrote in reply to the former pamphlet; Pestalozzi and Niederer wrote again in reply to Bremi. Niederer professes to have convicted Bremi of ninety-two lies, thirty-six falsifications, and twenty calumnies.

† Henning, in the Schulrath, (an educational periodical)

conversation had touched on one thing and another, he frankly told me things about several of his teachers which put me into a state of astonishment, and which stood in direct contradiction with what I had read in the report, but not with what I had myself already observed or expected. Pestalozzi followed up these disclosures with the proposal, that I and my friend, in company with Schmid, whom he highly praised, especially for his practical ability and his activity, should set to work to renovate the institution.

The proposal came upon me so unexpectedly, that I begged for time to think of it, and discussed the matter with my friend, who was just as much surprised as I was. We were both naturally brought by this means into a closer relation with Schmid, became in a short time acquainted with the *arcana imperii*, and honestly considered what obstacles stood in the way of the prosperity of the institution, and what could be done to remove them.

Foremost of these was the intermixture of German and French boys, which doubly pained me, as I had come from Paris. The parents thought otherwise: they perceived in this very intermixture a fortunate means of training their children in the easiest way to speak both languages: whereas the result was, that the children could speak neither. With such a medley of children, the institution was devoid of a predominant mother-tongue, and assumed the mongrel character of border-provinces. Pestalozzi read the prayers every morning and evening, first in German, then in French! At the lessons in the German language, intended for German children, I found French children who did not understand the most common German word. This, and much more that was to be said against this intermixture, was now discussed with Pestalozzi, and the proposal was made to him, to separate the institution into two departments, one for German, the other for French children. Only in this way, it was represented to him, could the education of each class of children be successfully conducted.

The proposal was not accepted, chiefly on account of external obstacles, which might however have been overcome. A passage in Pestalozzi's "Fortunes" shows that he afterward thoroughly agreed with us. In this passage he calls it an unnatural circumstance, that the institution was transplanted from Burgdorf to Yverdun, "from German to French soil." "When we first come here," he continues, "our pupils were nearly all Germans; but there was very soon added to them an almost equal number of French children. Most of the German children were now intrusted to us, not with any particular reference to any elementary or other education, but simply in order

that they might learn to speak French in a German house, and this was the very thing that we were least able to teach them; so also most of the French parents intrusted their children to us, in order that they might learn German in our German house: and here we stood between these two claims, equally unable to satisfy either the one or the other. At the same time, the persons on either side, who committed their children to our care, saw with as little distinctness what they really wished of us, as we did the extent of our inability to satisfy their real wishes. But it had now become the fashion to send us children from all sides; and so, in respect to pecuniary resources and eulogistic prattle, things went on for a considerable time in their old glittering but deceptive path."

The second evil was this. Much as is said in the report about the life in the institution having quite the character of that in a family, and even excelling it in many respects, still nothing could be less domestic than this life was. Leaving out of consideration Pestalozzi's residence, there were indeed in the old castle class rooms, dining rooms, and bed rooms, but the parlor, so justly esteemed by Pestalozzi, was altogether wanting. Older boys who, as the expression is, had arrived at years of indiscretion, may have felt this want less; but so much the more was it felt by the youngest—by children of six to ten years. I felt deeply on this account for my little Freddy, who, until he came to the institution, had grown up under the care of a tender mother in a lovely family circle. His present uncomfortable and even desolate existence grieved me much, and troubled my conscience. For his sake, and at the same time, for the sake of the rest of the little boys, we begged Pestalozzi to rent a beautiful dwelling house in the vicinity of Yverdun, where the children might find a friendly compensation for the life of the family circle which they had lost. We offered to take up our abode with them.

This proposal also was declined. It may easily be supposed that in the consultation upon it, the weak side of the institution, the want of a parlor, and the impossibility even of supplying the place of the family life, was very fully discussed.*

Many of the conversations I had with Pestalozzi I shall never forget. One of them concerned the teachers of the institution, in particular the under-teachers. I saw that many of them labored with the greatest fidelity and conscientiousness, even sacrificing themselves

* We made a third proposal, because it appeared to us to be impossible that Pestalozzi's ideas could be realized in Yverdun under the then existing circumstances. We asked him to establish in the canton of Argovia the long promised poor school, and offered to engage in the work ourselves to the best of our ability. As he declined this proposal also, I thought it my duty, especially on account of the boy confided to me, to leave the institution.

for the good of the institution. I need only refer the reader to the autobiography of honest, manful Ramsauer, for evidence of this fact. But still there was something wanting in most of the teachers; this Pestalozzi himself could not help feeling. In his new year's address of 1811, he said to them: "Do not attach a higher value to the ability to teach well, than that which it really has in relation to education as a whole. You have, perhaps, too early in your lives had to bear burdens which may have diminished somewhat the lovely bloom of your youth; but to you as educators, that bloom is indispensable. You must seek to restore it. I am not ignorant of your ability, your worth; but just because I know them, I would wish to set upon them the crown of an amiable disposition, which will increase your worth and make even your ability a blessing."

In what then were the teachers deficient? Pestalozzi points out one thing: many who had grown up in the institution had too early borne burdens, and had been kept in uninterrupted exertion. "Those teachers who had been pupils of Pestalozzi," says Ramsauer, "were particularly hard worked, for he at all times required much more from them, than he did from the other teachers; he expected them to live entirely for the house,—to be day and night concerned for the welfare of the house and the pupils. They were to help to bear every burden, every unpleasantness, every domestic care, and to be responsible for every thing. Thus, for example, in their leisure hours, (that is when they had no lessons to give,) they were required at one time to work some hours every day in the garden, at another to chop wood for the fires, and, for some time, even to light them early in the morning, or transcribe, &c. There were some years in which no one of us were found in bed after three o'clock in the morning; and we had to work summer and winter, from three in the morning till six in the evening."* Nearly all the work consisted in the direct performance of school duties; the teachers had no time to think of their own improvement.

There was another thing. Most of the teachers of the institution might be regarded as so many separate and independent teachers, who had indeed received their first instruction there, but who had passed much too soon from learning to teaching, and wished to see how they could fight their way through. There was never any such thing as a real pedagogical lecture. Under such a course of training, it could not happen otherwise than that some of the teachers should strike into peculiar paths: of this Schmid gave an example. But it was an

* Ramsauer's time-table shows that, from two or three o'clock in the morning till nine in the evening, he was almost constantly occupied with official duties.

equally necessary consequence, that the usual characteristic of such teachers should make itself apparent: namely, a great want of self-knowledge and of a proper modest estimate of their own labors.

"Man only learns to know himself in man."

I must know what others have done in my department of science, in order that I may assign the proper place and rank to my own labors. It is incredible, how many of the mistaken views and practices of Pestalozzi and his teachers sprang from this source.

But there was a third thing that I brought against Pestalozzi: his view of the teachers, and their relation to the methods and the methodical compendiums. As already mentioned, the compendiums were to render all peculiar talent and skill in teaching as good as unnecessary. These methodical compendiums were like dressing machines, which did not, unfortunately, quite supply the place of the teachers, but still left the services of a man necessary; just as in the most perfect printing presses, a man must always be appointed, though indeed he scarcely requires the most ordinary degree of intelligence.

Pestalozzi's idea of a teacher was not much better than this; according to his views, such a one had nothing to do, but to take his scholars through the compendium, with pedantic accuracy, according to the directions how to use it, without adding thereto, or diminishing therefrom. He was never required to be more than just a step in advance of the scholars. Just as if a guide with a lantern were to be given to a man traveling in the night, and the guide had not only to light the traveler, but first to find out the way himself with the aid of the lantern. The real teacher must have the destination and the road to it so clear before his mind, that he shall be able to guide the scholars without a lantern—without a book of method. He must be able to say, *La méthode c'est moi.**

But can any one imagine a more miserable piece of slave-work than that of a teacher who is strictly tied to a Pestalozzian compendium? Is not all peculiar teaching power thereby fettered,—all disposition to sprightliness and decision in teaching and acting kept down,—all affectionate relation between teacher and scholar rendered impossible?†

At that time the institution appeared to me, in moments of sadness, as a great noisy education factory; many mistook the dull noise

* "Every teacher," says Herder, "must have his own method; he must have created it with intelligence for himself, otherwise he will not be successful."

† On leaving Yverdun in 1810 and going to Berlin, I attended an examination at Plamann's institution. How the free, independent, and untrammeled teaching of Friesen and Harnisch contrasted with the cold, methodical, and constrained teaching of many Pestalozzian teachers!

of the machines for an expression of youthful joyousness on the part of the pupils, while engaged in learning.

Pestalozzi's view of the task of the teachers was too intimately connected with his general views on education, and had been too much realized in the institution to allow me to entertain the idea of his changing it, although the good old man bitterly felt that my observation was not without foundation.

At a later period, when the brilliancy of the reputation of the institution was decreasing more and more, Pestalozzi saw his underteachers in the year 1817, as he relates, "suddenly combine, like English factory work-people, desist by common consent from the performance of their duties, and declare in a body that they would give no more lessons, but would remain in a state of complete strike-idleness, until the salary of every one of them should be doubled."

Pestalozzi pressed me to teach mineralogy, and in doing so to make use of a small collection of minerals which the institution possessed. I replied that, if I did do so, I must entirely depart from the methods of instruction pursued in the institution. How so? asked Pestalozzi. According to that method, I replied, I should have to do nothing but to hold up before the boys one specimen of the collection after another, to give the name of each, for example, "that is chalk," and thereupon to make the class repeat in unison three times, "that is chalk." It was thought that in this way the observation of actual objects and instruction in language were provided for at the same time.

I endeavored to explain that such a mode of instruction made a mere show, giving the children words before they had formed an idea of the images of the minerals; that moreover this process of perception and conception was only disturbed by the talking of the teacher and the repetition of the scholars, and was therefore best done in silence. On Pestalozzi's opposing this view, I asked him why children are born speechless, and do not begin to learn to speak until they are about three years old; why we should in vain hold a light before a child eight days old, and say "light" three times, or even a hundred times, as the child would certainly not try to repeat the word; whether this was not an indication to us from a higher hand, that time is necessary for the external perception of the senses to become internally appropriated, so that the word shall only come forth as the matured fruit of the inward conception now fully formed. What I said about the silence of children struck Pestalozzi.

As far as my recollection extends, I have now related the most important matters that were discussed between Pestalozzi, Schmid, and

myself. I should at the present day still uphold the views which I entertained at that time; but, taught by so much experience, I should perhaps be able to do so with greater "clearness" than I could then have done.

But here I will by no means represent myself as blameless, and accuse others. Although I believe that my opinions were right, I know that my conduct was wrong in several respects; but this the unhappy circumstances of the institution will perhaps in some measure excuse. I will only mention one thing. Unfortunately, Niederer and Schmid were already placed in complete opposition to each other by their different capabilities, labors, and aims; in spite of my best endeavors, I found it impossible to effect a mediation between them, there was nothing left me but to side with the one or the other. Pestalozzi himself allied me with Schmid, whose resolute and restless activity was a pledge to me that he would render powerful assistance in introducing reforms. I was thus brought almost involuntarily into opposition with Niederer. Even though I did not altogether agree with his views, I ought to have emphatically acknowledged his self-sacrificing enthusiasm. I felt myself drawn to Krüsi by his mild disposition, but he too was against Schmid.

My silent observation was distasteful to the younger teachers; can I blame them for it? While they were toiling with unheard of exertion from morning till night, and had been toiling in the same manner for years previously, I looked on at their toilsome life with a critical eye. I appeared to them as a strange, quizzing, inactive intruder, and it was inevitable that I should so appear to them. They did not know that I had come with so high an opinion of the institution, that I wished at first only to look on, only to learn, in order to be able afterward to teach and to assist wherever I could.

That high opinion I had imbibed chiefly from the report. The report led me to form an over-estimate of the excellence of the institution before I went to Yverdun, and this over-estimate led me when there to think too lightly of its labors. I ought to have acknowledged *then*, the honest, conscientious, toilsome industry of several of the teachers, for instance, Ramsauer, even though they did not always bring to light discoveries that were entirely new; misled by the report, I had hoped, it is true, to find there nothing else but new discoveries.

But, notwithstanding all these evils, I should certainly have remained longer at Yverdun, and should have wrought in patient and persevering hope, had I not held it to be my duty to take away the boy intrusted to my care. I quitted Yverdun with him in May, 1810.

Soon after my departure, the long restrained enmity there broke out into an open feud. Schmid left the institution, and wrote against it.

In the summer of 1811, Monsieur Jullien, Napoleon's companion in arms in Egypt, and Chevalier of the Legion of Honor, visited Yverdun. He remained in the institution six weeks; his observations were embodied in two works.*

During the war of 1814, the hospital department of the Austrian army required that the buildings of the institution should be given up for a hospital. Fortunately, the Emperor Alexander was then at Basel: Pestalozzi immediately went to him, and was received in the most friendly manner; in consequence of the interposition of the emperor, the hospital was not established at Yverdun at all, and in November of the same year Pestalozzi received the order of St. Vladimir, fourth class.

Schmid's departure from the institution caused a very sensible void, the existence of which was painfully felt. Letters which Pestalozzi wrote to Niederer at that time, bear witness to the evil plight in which the institution was placed. "O Niederer," he writes, "without strength and purity of purpose in those who surround us, all our endeavors after what is great and high are lost; the sublime and good can not easily unfold themselves where weakness and worthlessness peer forth from all corners—our greatest enemies are under our own roof, and eat from the same dish with us—it is better to be alone than to accept delusive aid from baseness."

In a second letter, Pestalozzi writes: "The internal weakness of our house has opened the mouth of the weakest among us, for them to give us monkey's advice and hold public conferences about us among themselves. The great evil of our house comes from boys who here play the part of men, but who at every other place would be schoolboys."

In this period falls also the visit of the Prussian Chancellor of State, von Beyme, who entered the institution "with a great predisposition in favor of Pestalozzi," and before he left it expressed himself to the effect, that if the institution held together for another year, he should look upon it as the greatest wonder, for that, in the instruction which he had seen given there, things were wanting which teachers in the lowest village schools would be ashamed to have neglected.

Niederer felt more than any one else the void created by the departure of Schmid. As early as the end of the year 1813, he wrote to Schmid in the most conciliatory manner, and writing on the 10th

* *Précis sur l'institut d' Yverdun en Suisse*, 1812; and *Esprit de la méthode d'éducation de M. Pestalozzi.*

of February, 1815, he says: "With Pestalozzi, I stake every thing I have upon bringing you back. Alone I can do nothing. You know wherein I am deficient, but with you and a few other distinguished and noble minded men, I do not doubt of the realization of an educational heaven on earth."

Pestalozzi adduces these passages as certain proofs of Schmid's ability, and the high value of his services to the institution: but they also testify to an honorable mind on the part of Niederer, who did not attempt to conceal his own practical incompetency, and who repressed a deep-seated antipathy to Schmid, in order to realize his educational ideal.

Schmid was then at the head of a school in Bregenz. At Niederer's pressing invitation, he returned to Yverdun in the Easter of 1815, and now commenced a comprehensive reform of the institution, especially in an economical point of view. There soon arose a silent but general antipathy to him.

On the 11th of the following December, Madame Pestalozzi died, aged nearly eighty years, having been the faithful and patient partner of her husband during forty-five years, through times of severe suffering. At her funeral, after a hymn had been sung, Pestalozzi, turning toward the coffin, said: "We were shunned and contemned by all, sickness and poverty bowed us down, and we ate dry bread with tears; what was it that, in those days of severe trial, gave you and me strength to persevere and not cast away our hope?" Thereupon he took up a Bible, which was lying near at hand, pressed it on the breast of the corpse, and said: "From this source you and I drew courage, and strength, and peace." Her grave is under two tall walnut trees in the garden of the castle.

On this sorrowful day, the antipathy of many of the teachers toward Schmid first broke out into open enmity, which was never again appeased, and which positively poisoned the last twelve years of the poor old man's life. From that time every blessing seemed to forsake the institution, and every new undertaking in which Pestalozzi engaged.

Most of the teachers were against Schmid. Blochmann, for many years director of a flourishing educational establishment at Dresden, drew up a formal complaint against him, which was signed by Krüsi, Ramsauer, Stern, Ackermann, and others, in all twelve teachers.

In the year 1816, these men left the institution, among them even Krüsi, so many years the fellow-laborer of Pestalozzi. "Father," he wrote to Pestalozzi, "my time of enjoying your presence is past. I must leave your institution, as it is now conducted, if I am not

forever to lose my courage and strength to live for you and your work. For all that you were to me, and all that I was able to be to you, I thank God; for all my shortcomings, I pray God and yourself to forgive me.

At length, in 1817, Niederer also separated from the institution; Pestalozzi tried in vain the following year to reconcile him with Schmid. Both of them acknowledged Pestalozzi as their master, and yet the reconciliation was impossible. They were too much opposed to each other, not merely in natural endowments, but in their aim and object, in the educational idea which each endeavored to realize in the institution.

Niederer saw in Pestalozzi a man who had grasped with instinctive profundity the subject of human culture, but had given only a fragmentary view of it, and who could not control the ideas which, as it were, possessed him. Niederer felt himself called to control them philosophically—to build up out of those mighty educational fragments a complete systematic theory.

At first, Pestalozzi could not comprehend him, not understanding his philosophical language. At a later period, Pestalozzi saw in him the one man in the institution, who, standing on the pinnacle of German culture, was fitted to assign to the new method its proper place in the region of human culture generally. Only by such a man, he thought, could the educated world, especially Germany, be won over to his educational plans; by such a man must his Swiss idiom be translated into an intelligible *high* German. Nay, for some time he even thought that Niederer understood him better than he understood himself.

Niederer was deficient in the practical skill requisite for carrying out his educational theory, as he himself frequently acknowledged. His intention in the institution was more to observe the results of the practical talent at work there, and in this manner to learn what he could, but at the same time to see that all the teachers wrought together with one mind toward one and the same object—the realization of the educational theory.

No wonder that Pestalozzi, as he again and again affirmed, did not feel himself attracted by Niederer's peculiar character, even at times when the two men stood in a very friendly relation toward each other; and just as little need we wonder that the old man subsequently dissolved a connection, which had been formed by his will rather than his inclination.

But how entirely different was his relation to Schmid! "Inexplicable feelings," he says, "drew me toward him from the moment of

his appearance in our circle, as I have never felt myself drawn toward any other pupil." Pestalozzi writes characteristically: "I must trace from its origin the *strength* which alone appeared capable of holding us together in this unhappy state." This personified strength was no other than the shepherd boy Schmid, who had migrated from the Tyrolese mountains to Burgdorf. Pestalozzi says that he soon left his teachers behind him. "By his practical talent and incessant activity," continues Pestalozzi, "he soared above the influence of every other person in the house. I did not conceal that I looked upon the *strength* of this pupil, though still so young, as the main stay of my house." Pestalozzi characterizes Schmid in the same way in an address which he delivered in the year 1818. "I will not," he says, "make more of him than he is to me. I know him. He has a natural power which, in its artlessness, penetrates where much art has often before my own eyes failed to enter. Schmid threw a hard shell about the kernel of my vanishing labors, and saved me."

Niederer also acknowledged in the fullest measure, the ability and activity of Schmid. Like Pestalozzi, Niederer saw in him a most indefatigable teacher of mathematics and drawing, who, by his example, as well as by severe censure, could incite the remaining teachers to conscientious activity; he also saw in him a man who, being a pupil of Pestalozzi, was regarded as one of the fruits of the method, and who consequently impressed foreign visitors with a favorable idea of it. Thus it came that, in the year 1814, he hoped every thing from a reconciliation with Schmid. But how deceived he found himself, when Pestalozzi gave into Schmid's hands the sceptre over the entire institution.

Blochmann, too, in his complaint, acknowledges Schmid's "activity, perseverance, endurance, punctuality, administrative ability, his meritorious services in establishing greater order in the institution, his skill in teaching the elementary branches of mathematics—a rare talent." All these were qualities which neither Pestalozzi nor Niederer possessed, and which, therefore, marked out Schmid as an indispensable member of the staff of teachers. But, if Blochmann and the other teachers who signed the complaint acknowledged this, why did they press for Schmid's removal? Because, they answer, in that document, "the source of all that Schmid does is complete selfishness, ability without humility, without love, without self-denial, sounding brass, a tinkling cymbal, and Schmid himself is wise as the serpent, but not harmless as the dove."

In a letter, (19th March, 1818,) to Pestalozzi, Niederer reproaches him with having overrated the ability of Schmid, and ability generally.

"Ruin," he says, "entered your institution, when, dazzled and led away by individual instances of brilliant talents and results, you ceased to bestow any particular attention on that which by its nature can work only in silence, although it stands higher than talent, and alone can render the development of talent possible; when you began so to act as if you owed every thing to that with which you could make a display, and nothing to that which was not suited to this purpose. Under this fundamental error, I say more, under this fundamental injustice, the mathematical side of the method and the institution was made prominent, as if that singly and solely were the essence of the method and the salvation of humanity. Low and one-sided qualities were honored at expense of the higher ones. The qualities of good temper, fidelity, love, if they were not joined with those external qualities, were slighted and depreciated in the persons in whom they existed. In the kind of praise which you gave to the manual dexterity of utterly inexperienced youths in particular departments, you placed this dexterity above intelligence, knowledge and experience."

Let us now return to the history of the institution.

In the Easter of 1816, M. Jullien, already mentioned, came to Yverdun, bringing twenty-four pupils with him from France; but, annoyed, it is said, by Schmid, he quitted the institution the very next year.

As already stated, Niederer separated from the institution in 1817, from which time he conducted the girls' school only, in company with his wife. In the same year, a most ignominious and lamentable lawsuit, which lasted seven years, arose concerning the pecuniary affairs of this school, between Pestalozzi and Schmid, on one side, and Niederer, on the other. "It was in July, 1817," says Pestalozzi, "that a letter referring to that quarrel suddenly threw me into a state of inward rage, which was accompanied by an outbreak of real delirium, and placed me in danger of completely losing my reason, and sinking into utter insensibility." Schmid took the old man to Bület, on the Jura, whose cooling heights acted wholesomely on the endangered state of his nerves. There he poured out his sufferings in poems, in which his soul, now caught in the trammels of the most painful and ignoble relations, utters with wailing, its aspirations after heavenly freedom. Here is one of those poems:—

Fair bow, that smil'st amid the storm,
Thou tellest of the bliss of God!
With those soft beams of many hues,
O shine in this afflicted heart
Amid its wild and life-long storm!

Tell me of brighter morn to come,
O tell me of a better day,
Fair bow, that joinest earth to heav'n!

Through all the dark and stormy days,
The Lord hath been a rock to me,
My soul shall praise His holy name
Must I be call'd from this fair earth,
Ere thou appearest in my heart,
And bringest with thee heavenly joys
And that long wished for better day:
Must I drink out the bitter cup—
The cup of fierce contending strife
And enmity not reconciled—
Till I have drained the deepest dregs:
Must I from hence depart,
Ere peace, the peace I seek, is found?
I own my burthen of offense,
My many weaknesses I own,
And with affection and with tears,
All my offenders I forgive;
But death will bring me peace,
And after death's long night of rest,
A better day will dawn for me!
Thou herald of that better day,
How lovely then wilt thou appear
Above my still and lonesome grave:
Fair bow that shin'st like Hope through tears.

Like snow new fallen on the ground,
Like those bright flakes of winter-tide
Which, beaming lovely in the sun,
Sank into that new open'd grave,
Where lay the partner of my days:
Fair bow, that shin'st with heaven's light,
Thus lovely, in the hour of death,
Do thou appear once more to me.
Through all the dark and stormy days,
The Lord hath been a rock to me!
My soul shall praise his holy name!

An attempt, which Pestalozzi made in 1817, to enter into connection with Fellenberg, was unsuccessful. In 1818, Schmid made an arrangement with Cotta, (the great Leipsig publisher,) for the publication of a complete edition of Pestalozzi's works; subscriptions to a considerable amount soon flowed in. The emperor of Russia subscribed 5,000 roubles; the king of Prussia, 400 dollars; the king of Bavaria, 700 guilders. Thereupon, Pestalozzi's hopes revived. In a remarkable address, already mentioned, which he delivered on his seventy-third birth-day, the 12th of January, 1818, he stated that he should appropriate to educational purposes, 50,000 French livres, which the subscription would yield.

In the same address, Pestalozzi speaks freely on the subject of his relations to Niederer and Schmid, and justifies himself for having separated from the former and joined with the latter. He hits off Niederer admirably when he says: "I am conscious of a high and

fervent love for him. Only he should not require me to value in him what I do not understand; he should ascribe it to the weakness of my head, not to the hardness of my heart, if I fail to do so, and should not on that account pronounce me ungrateful. But what shall I say? Here lies the very ground of complaint against me, namely, that I am no longer capable of following the spirit of my endeavors, and that through my incapacity, I cripple and destroy the strength of those who are further advanced in that spirit than myself. It is an old complaint, that my spirit has left me; that I have outlived myself, and that the truth and the right of my labors have passed from mine into other hands. I know well, also, and I feel it deeply, that I do not possess, in the least degree, some qualifications which are essential to the furtherance of my views; on the other hand I know just as certainly, that all those qualifications which I formerly possessed, I still feel myself to possess in some vitality, and with an impulse to apply them to use."

Of this the address affords sufficient proofs; I will quote some passages.

"Man has a conscience. The voice of God speaks in every man, and leaves no one unconvinced as to what is good, and what bad; what is right and what wrong."

"Contemplate man in the entire range of his development. See, he grows, he is educated, he is trained. He grows by the strength of his own self; he grows by the strength of his very being. He is educated by accident, by the accidental that lies in his condition, in his circumstances, and in his relations. He is trained by art and by the will of man. The growth of man and his powers is God's doing. It proceeds according to eternal and divine laws. The education of man is accidental and dependent on the varying circumstances in which a man finds himself placed. The training of man is moral. Only by the accordance of the influences of education and training with the eternal laws of human growth is man really educated and trained; by contradiction between the means of his education and training and those eternal laws, man is mis-educated and mis-trained."

Pestalozzi gives a striking delineation of the contrast between the old time and the new.

"The time in which we live, is really a time of excessive artificial refinement, in contradistinction to a high and pure sense of innocence, love, and faith, and that powerful attachment to truth and right which springs from these virtues. Who among us, if he be not an alien that neither knows the present time and its spirit, nor has searched into the time of our fathers and its spirit, but must acknowledge that the time of our fathers was a better time, their spirit a better spirit; that their sincerity of purpose had its foundations laid immeasurably deeper, in the religion of the heart, in strong earnestness in domestic and civil life, and in the daily exercise of industry in the good works of a simple and satisfying professional life, than can possibly be the case in our paralysing refinement of the powers of body and soul. Our fathers were cheerful, reasonable, and benevolent, in all simplicity. Their circumstances were peculiarly fitted to lead them daily and hourly in all innocence, in faith, and in love, to be good-tempered, reflective, and industrious; but our artificial refinement has rendered us disgusted with our fathers' mode of life, and with the sources of their moral, domestic, and political elevation. We have almost entirely departed from their spirit and their mode of life. But it is for this reason that we have sunk so low

in respect to the education of the people. We have the semblance of faith, love, and wisdom, but not the qualities themselves; and we live in a delusion, really without the virtues of our fathers, while they, though possessing those virtues, were by no means satisfied with themselves, as we are. The good and pious foundation which our fathers had in their mode of life itself for their views, feelings, opinions, and usages generally, and particularly in respect to the training of children and the relief of the poor, has sunk under our feet through the deception of our present artificial and frivolous mode of life. We are no longer what we were, and we have even lost the feeling that we ought to become again in spirit and in truth what we were. While we praise our fathers with our mouths, we are in heart far from them, and in our doings we stand at the very antipodes of them. We have substituted for their ability to do what was necessary, and their ignorance of what was useless, a large acquaintance with what is useless and an inability to do what is necessary. Instead of their healthy spirit, well exercised in mother-wit, we have forms, not so much of thinking as of verbal expressions about what has been thought, which suck the blood out of good sense, like a marten that fixes itself upon the neck of a poor dove. We no longer know our neighbors, our fellow citizens, or even our poor relations; but we make up for it by reading the newspapers and periodicals, by learning the genealogical register of the kings of the world, the anecdotes of courts, of the theatre, and of capital cities, and we raise ourselves to a daily change in our political and religious opinions, as in our clothes, running, on one side, from infidelity to *capucinade*, and from *capucinade* to infidelity, just as, on the other side, we run from sans-cullottism to tight-lacing and leading strings. Our fathers cultivated a general, simple, and powerful intellect; but few of them troubled themselves with researches into higher truths, which are difficult to fathom: we do very little indeed toward rendering ourselves capable of cultivating a general and profound spirit of thought and research: but we all learn to talk a great deal about sublime and almost unfathomable truths, and strive very zealously to get to read the results of the profoundest thinking in the popular descriptions of almanacs and daily pamphlets, and to put them into the mouth of people generally. Among our fathers, every honest man sought to do one thing well at least, namely, the work of his calling, and every man might with honor learn every trade; now our notables are mostly born to their callings. Numberless individuals are ashamed of the rank and profession of their fathers, and believe themselves to be called to pry into and carp at the professional knowledge of all ranks; and the habit of prating about all professions and discharging one's own imperfectly is becoming more general every day, among both the notable and unnotable men of our time. All spirit of political strength has fled from amongst us. In the present state of society we no longer ask what we really are, but what we possess and what we know, and how we may set out all our possessions and knowledge for show, put them up for sale, and barter them for the means of feasting ourselves, so that we may tickle our palates with the refined enjoyments of all the five divisions of the globe, whose appetites must by such conduct be almost inevitably engendered in us. And when we have in this way succeeded in rendering ourselves powerless and degraded in body and soul, in respect to the pure claims of the humanity of our nature, and of the eternal and divine essence which lies at its foundation,—then, in the state of debility and giddiness into which the fever has thrown us, we further seek to force up the appearance of a character whose truth and purity we entirely lack. In this state, we seek to cover over the outward appearances of our debility and desolation by a violent employment of the means of adjustment and concealment, which kill heart and spirit and humanity; and verily we have sunk to the employment of such means in many matters connected with the education of the people and the relief of the poor. Thus it is that we kill, in ourselves, the very essence of the powers of the soul, those human gifts divine; and then, when a shadow of the powers which we have killed flutters in us, we ornament the works of its fluttering with golden frames, and hang them up in splendid apartments, whose shining floors are unable to bear any of the good works of the ordinary life of man."

In another place, Pestalozzi says: "The gardener plants and waters, but God giveth the increase." It is not the educator that implants

any faculty in man; it is not the educator that gives breath and life to any faculty: he only takes care that no external influence shall fetter and disturb the natural course of the development of man's individual faculties. "The moral, the spiritual, and the artistic capabilities of our nature must grow out of themselves, and by no means out of the results produced by art, which has been mixed up with their education. Faith must be called forth again by faith, and not by the knowledge of what is believed; thinking must be called forth again by thinking, and not by the knowledge of what is thought, or of the laws of thinking; love must be called forth again by loving, and not by the knowledge of what is loveable or of love itself; and art must be called forth again by ability, and not by endless talk about ability."

The reader can judge from the passages just cited whether any degree of youthful freshness still lingered in the mind and heart of the old man of seventy-three.

But his "unrivaled incapacity to govern," as he himself calls it, did not forsake him. He established a poor school in 1818 at Clindy, in the vicinity of Yverdun; a commencement was made with twelve boys. "They were to be brought up as poor boys," says Pestalozzi, "and receive that kind of instruction and training which is suitable for the poor." But after a short time, children were admitted to board in the establishment, at a fee of twelve louis d'or per annum; and in a few months the number of these pupils rose to thirty. It may be easily imagined that the presence of paying boarders would of itself destroy the character of the place as a school for the poor. But this result was occasioned in a still higher degree by some remarkably stupid experiments in teaching. An Englishman,* of the name of Greaves, visited Yverdun in 1819; he offered to teach these poor Swiss children English without remuneration, and his offer was accepted. On this step Pestalozzi himself remarks: "This created an impression, which, considering the original destination of these children, led us very far astray." To the instruction in English was added soon after instruction in French and Latin. Pestalozzi says, the poor children had made extraordinary progress in the elementary subjects. He adds, nevertheless, "I had no longer an establishment for the poor; but, on the contrary, two scientific ones, which I could not now allow to remain separated. Thus the so-called poor school at Clindy was amalgamated with the institution at Yverdun." According to Pestalozzi's account, the poor scholars were "models

* A second Englishman entered the establishment the same year, as the religious instructor of the English pupils who had been admitted. Later, "above half a dozen *poor* children" were even sent from England to the school!

worthy of imitation" to the pupils of the institution, especially in their acquirements. Many of them were employed as teachers. "The instruction which was given by the pupils of our poor school, (says he,) was preferred, on account of its solid and natural character to that of the most accomplished among the elder teachers of our house." (!) They threw their strength chiefly into arithmetic and geometry. Is it to be wondered at, that these poor children soon began to place themselves on a level with the children of the institution, and liked playing with them out of school hours better than chopping wood and carting manure;—that, instructed in three foreign languages, they did not like the idea of becoming masters of poor schools, and of having learnt Latin to no purpose?

Pestalozzi acknowledged, when it was too late, "that the establishment had taken such a direction that it was no longer to be looked upon as a poor school, but as a school for imparting the elements of a scientific education." The particular reason of the failure had been "that these children were led into acquirements, habits, pretensions, dreams, and appetites, which did not suit the character of their original destination, and even tended to unfit them for it."

Pestalozzi's unhappy disputes with Niederer and others went on uninterruptedly during this time. At last a reconciliation was brought about through the noble exertions of deputy governor Du Thou. On the 31st of December, 1823, Niederer wrote an apology to Schmid in the name of Krüsi and himself, in which, at the same time, it was said that any future dispute should be settled by an arbiter.

Unfortunately, newspapers and controversial writings of those years have made the public only too well acquainted with this dispute. Pestalozzi's worst enemies could not have conceived any thing that would have been more calculated to damp the public enthusiasm for him.

Who would like to undertake the task of placing before readers the details of these unfortunate occurrences, especially when it is considered that they almost exclusively concerned private interests? On February 1st, 1823, Pestalozzi wrote to Niederer a conciliatory letter, which shines forth in the midst of this lawsuit like a brilliant gem out of the mire. I give the following passage from this letter with pleasure:—

"DEAR MR. NIEDERER,*—Call to mind what we once hoped from each other and what we were to each other. I would again hope from you what I formerly hoped, and I would again be to you what I formerly was. But we must make the way to this possible for each other; we must help each other to clear the way to it, each from the point on which he stands. Let us do this. Above all,

* In November, 1824, the lawsuit which has been mentioned was terminated by arbitration.

let us, without circumlocution and without condition, forgive each other, and unite with a pure intention in true love, in true friendship, and in an undertaking which will be for our mutual happiness. Niederer, become again as far as you can my old Niederer—such as you were twenty years ago. Madame Niederer, be also to me again something of what you were then. I will readily be to both of you again, as far as I can, what I then was. How I long for the time when our hearts shall bring us to ourselves again, and when, in the path of real self-knowledge we shall attain to love, which is equally our duty as Christians, and the pressing need of our condition. Oh! Niederer, how I long for the time when strengthened and sanctified by this renewed love, we shall be able to go once more to the Holy Sacrament, when the festival comes round, without having to fear that the entire commune in which we live, scandalized by our conduct, will shudder at our coming to the Lord's table, and will cast upon us looks of indignation as well as pity. Oh! Niederer, the path of this renewed love is the only one which will lead to true honor, as it is also the only one which will lead to the restoration of a lost semblance of honor. Oh! Niederer, think not that the tricks and chicanery of law can ever bring us to the pinnacle of honor to which we can raise ourselves by the restoration of our love. My old friend, let us make clean the inside of the platter, before we trouble ourselves about the false glitter of the outside."

These lamentable lawsuits had naturally the worst influence on the hybrid institution. Pestalozzi felt this most painfully, and thought that his poor school would succeed, if he could only transfer it from unlucky Yverdun to Neuhof, in the canton of Argovia—the same Neuhof where, many years before, he had made his first important educational experiments. He had a new house built there for the purpose.

Each of the poor children who had been admitted into the school had bound himself to remain in it five years, from 1818 till 1823. The five years ran out. Pestalozzi confidently hoped that many of these children would follow him to Neuhof, and form the nucleus of the new establishment. But not one remained. As I have already remarked, they had imbibed grander ideas from the instruction which they had enjoyed, and they sought to make their fortune in other ways. "They considered it," says Pestalozzi, "beneath their dignity to be appointed teachers in a Pestalozzian poor school at Neuhof." When at last even a favorite pupil of his rejected all his offers, and went away clandestinely from Yverdun, the old man's heart was full. "The illusion, in my mind," he says, "as to the possibility of transplanting to Neuhof an establishment in Yverdun of which not an inch was in reality any longer mine, was now entirely dispelled. To resign myself to this conviction, required me to do no less than abandon all my hopes and aims in regard to this project, as for me completely unattainable. I did so at last, and on March 17th, 1824, I announced my total inability further to fulfill the expectations and hopes which I had excited, by my projected poor school, in the hearts of so many philanthropists and friends of education."

At length, in the year 1825, Pestalozzi also broke up the institution, after it had stood for a quarter of a century; and he returned, an old man of eighty years, and tired of life, to Neuhof, where, exactly half

a century before, he had begun his first poor school. "Verily," he says, "it was as if I was putting an end to my life itself by this return, so much pain did it give me."

Pestalozzi had but one child, a son, who was born in 1770, and died at the early age of twenty-four, leaving a son himself.* This grandson of Pestalozzi was in possession of the estate of Neuhof; to him the old man went.

In these last years of his life, he wrote the "Song of the Dying Swan" and the "Fortunes of my Life." He looked back with deep pain on so many shipwrecked enterprises, and acknowledged that the blame was his, as the wreck had been brought on by his incompetency to manage the helm. He speaks, as we have seen, with equal candor of his fellow-workers.

These last writings of Pestalozzi have been regarded by many as the melancholy and languid outpourings of the heart of a dying old man. As far as concerns the old man's judgments on the institution, as it was at the time of my stay at Yverdun, I have already remarked that I consider them for the most part highly truthful, and as affording evidence that he was not deficient in manly clearness and penetration even in his old age.

In May of the year 1825, he was elected President of the Helvetian Society of Shinznach, of which he was the oldest member. The following year he delivered a lecture before the Education Society of Brugg, on, "The simplest means which art can employ to educate the child, from the cradle, to the sixth year, in the domestic circle." Thus the gentle influence of home education remained to the last the object of his love, as it had been fifty-six years before, when he wrote "Leonard and Gertrude."

On the 21st of July, 1826, Pestalozzi, in company with Schmid, visited the establishment of the excellent Zeller in Bruggen. The children received him with singing. An oak wreath was handed to him, but he did not accept it: "Not to me," he said, "but to Innocence belongs the wreath." The children sang to him the song by Goethe which he has introduced into "Leonard and Gertrude."

Thou art from highest skies,
Every storm and sorrow stilling;
Hearts that doubled anguish tries
Doubly with thy sweetness filling;
On the wave of passion driven,
Oh, how longs my soul for rest!
Peace of Heaven
Come, oh come within my breast.

Tears choked the voice of the old man.

* The widow, an excellent woman, subsequently married a Mr. Kuster, and remained attached to Pestalozzi with true affection.

From his youth, Pestalozzi had been weakly in constitution, and he had repeatedly suffered severe attacks of illness. In the year 1806, he was suddenly knocked down in the street by the pole of a carriage, and trampled under foot by the horses. "It is a great wonder," he said in an address on New Year's Day, 1808, "that I was saved from under the horses' feet. See, they tore the clothes from off my back, but did not touch my body."

In the year 1812, he suffered very severely for a long time from accidentally running a knitting needle into his ear.

But, notwithstanding slight ailments and dangerous accidents, his life was prolonged to a very advanced age.

At length he approached the end of his earthly existence. Some time before his death, he said: "I forgive my enemies; may they find peace now that I go to eternal rest. I should liked to have lived another month, to have completed my last labors; but I again thank God, who in His Providence calls me away from this earthly scene. And you, my children, remain in quiet attachment to one another, and seek for happiness in the domestic circle." Soon after, he breathed his last. He had lain ill only a few days. On the 15th of February, 1827, he had been removed from his country house to the town of Brugg, in order that he might be nearer to his physician; on the morning of the 17th he died, after violent paroxysms of fever; and on the 19th he was buried. His corpse was carried past the new poor school which he had begun to build, but could not complete, and was interred with a quiet and modest funeral service at the village of Birr. Few strangers attended his funeral, for the snow lay thick on the ground, and his interment took place sooner than might have been expected; the news of his death had scarcely been received in the canton of Argovia. Schoolmasters and children from the surrounding villages sang their thanks to the departed in artless strains over his grave.*

Pestalozzi rests from the labors of his toilsome life.

At the grave a Sabbath stillness sets in; we look back upon the past, but, at the same time, we look forward into the eternal life of the departed, and ask whether, in time, he seriously prepared himself for eternity—whether all the labors of his life were done in the Lord, and whether he died in the Lord.

Not as severe judges do we ask, but in all the humility of co-redeemed sinful fellow-men; we ask with the fond wish that he may be blessed eternally.

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* Heussler.

In a letter written in the year 1793, Pestalozzi says, "Wavering between *feelings*, which drew me toward religion, and *opinions*, which led me away from it, I went the dead way of my time; I let the essential part of religion grow cold in my inmost heart, without really deciding against religion."

That is the judgment which he pronounced upon himself in his forty-eighth year; at the time of Robespierre, when the earthy political element reigned to such a degree in the minds of men, that no quiet abode remained for the religious element.

The "Evening Hour of a Hermit," written thirteen years earlier, when the world was more tranquil, and as yet not off its hinges, contains passages which are penetrated with true christian unction. To these belongs especially the concluding passage of the whole, already quoted, in which Pestalozzi speaks of Christ as "the Son of God, who with suffering and death has restored to mankind the universally lost feeling of filial love toward God—the Redeemer of the World—the sacrificed Priest of the Lord—the Mediator between God and sinful mankind;" and of his doctrine as "the revelation of God the Father to the lost race of his children."

But other passages of this paper, enticing as they sound, are at variance with essential doctrines of christianity. Thus the one in which Pestalozzi says, "Faith in God, thou art the pure sense of simplicity—the ear of innocence listening to the voice of nature, which proclaims that God is father."

Where is the ear of innocence to be found? The Scripture saith: "There is none righteous, no not one: There is none that understandeth, there is none that seeketh after God. They are all gone out of the way, they are together become unprofitable; there is none that doeth good, no, not one." (Romans iii., 10, 11, 12.)

Where is the ear of innocence? If it were to be found among men, then it might certainly hear a voice of nature, proclaiming that God is father. In that case, the heathen might also have prayed, "Our Father." But nowhere do we find the slightest evidence that the ancients loved their gods, not to say God, with filial love.

And, could man by nature love God, to what purpose were Christ the restorer of the lost filial love of mankind? But this very expression itself appears to me to be almost a euphemism for "The LORD hath laid on him the iniquity of us all." (Isaiah liii., 6.)

We saw, in considering the book, "How Gertrude teaches her Children," how deep an influence Pestalozzi's notion of the innocence of children exercised upon his educational theory; like Rousseau, he wanted to gather figs of thistles. Did he retain this notion to the end of his life? We shall answer this question in the negative.

In "Leonard and Gertrude," all the stress is laid upon active christianity, love is *occasionally* placed almost in opposition to faith: a dead, hypocritical faith not being always distinguished with sufficient exactitude from true faith, which is active in love. The clergyman in Leonard and Gertrude is an honest man, but strongly inclined to mere moralizing; his care of his flock is more that of a faithful personal friend, than of one acting in the spirit and strength of a church.

In the "Researches," christianity is styled a religion of morality—an effort to make the spirit subdue the flesh. If, according to the letter cited, Pestalozzi wavered between feelings, which drew him toward religion, and opinions, which led him away from it, both feeling and christianity give place, in the work just mentioned, to this belabored product of the intellect.

In the book, "How Gertrude teaches her children," the educational theory is, as we have seen, extremely weak on the religious side; it is more a rhetorical theory of intellectual developments estranged from Christ.

But in this book, also, Pestalozzi's feelings repeatedly glances through; there stand forth the aim and yearning desire of his toilsome life, the depth of a love which brought upon the poor helpless man countless sorrows and almost drove him to despair. From the depths of his necessity, he then cries to God, praying, hoping, offering up his thanks: "Friend," he writes to Gesner, "let me now for a moment forget my aim and my labors, and abandon myself entirely to the feeling of melancholy which comes over me, when I remember that I still live, though I am no longer myself. I have lost every thing, I have lost myself; nevertheless, thou, O Lord, hast preserved in me the desires of my life, and hast not shattered to pieces before my eyes the aim of my suffering, as thou hast shattered the aim of thousands of men, who corrupted themselves in their own ways. Thou hast preserved to me the work of my life, in the midst of my own ruin, and hast caused to arise upon me, in my hopeless declining age, an evening brightness, the sight of whose loveliness outweighs the sufferings of my life. Lord, I am not worthy of the mercy and faithfulness which thou hast shown toward me. Thou, thou alone, hast had mercy on the trampled worm; thou alone hast not broken the bruised reed; thou alone hast not quenched the smoking flax; and hast not, to the latest period of my life, turned away thy face from the offering, which from childhood I have desired to bring to the forsaken in the land, but have never been able to bring."

Before I consider the religious character of Pestalozzi's later works, I will first look at that of his institution. It is best delineated by Ramsauer. He entered the institution at Burgdorf in 1800, as

a boy of ten years; he left it at the age of twenty-six, as head teacher, when he went from Yverdun to Würzburg. Thus he had, both as a learner and as a teacher, become acquainted with the religious tendency of the institution. When, in later years, the deep truth and solemn sanctity of christianity dawned upon his awakened conscience, which impelled him to self-knowledge, then first did he learn to form a just estimate of that religious tendency. He narrates as follows:—

"In Burgdorf, an active and entirely new mode of life opened to me; there reigned so much love and simplicity in the institution, the life was so genial—I could almost say patriarchal; not much was learned, it is true, but Pestalozzi was the father, and the teachers were the friends of the pupils; Pestalozzi's morning and evening prayers had such a fervor and simplicity, that they carried away every one who took part in them; he prayed fervently, read and explained Gellert's hymns impressively, exhorted each of the pupils individually to private prayer, and saw that some pupils said aloud in the bedrooms, every evening, the prayers which they had learned at home, while he explained, at the same time, that the mere repeating of prayers by rote was worthless, and that every one should rather pray from his own heart. Such exhortations became more and more rare at Yverdun, and the praying aloud ceased altogether, like so much else that had a genial character. We all felt that more must be learned than at Burgdorf; but we all fell, in consequence, into a restless pushing and driving, and the individual teachers into a scramble after distinction. Pestalozzi, indeed, remained the same noble-hearted old man, wholly forgetting himself, and living only for the welfare of others, and infusing his own spirit into the entire household; but, as it arose not so much from the religious arrangements and from Pestalozzi's principles, as from his personal character, that so genial a life had prevailed at Burgdorf, that spirit could not last long, it could not gain strength and elevate itself into a christian spirit. On the other hand, so long as the institution was small, Pestalozzi could, by his thoroughly amiable personal character, adjust at once every slight discordance; he stood in much closer relation with every individual member of the circle, and could thus observe every peculiarity of disposition, and influence it according to necessity. This ceased when the family life was transformed in the institution into a constitutional state existence. Now the individual was more easily lost in the crowd; thus there arose a desire, on the part of each, to make himself felt and noticed. Egotism made its appearance every day in more pointed forms. Envy and jealousy rankled in the breasts of many. The instruction, calculated only for the development of the mind, nourished feelings of selfishness and pride; and the counterpoise, which only the fear of God could have given, was not known. Instead of being told that only *that* teacher could labor with God's blessing who had attained to the knowledge and the belief of the highest truths, and had thus come to see that he was nothing of himself, but that he had to thank God for whatever he was enabled to be or to do, and that every christian, but especially the educator, had daily cause to pray to God for patience, love, and humility, and for wisdom in doing and avoiding; instead of this, we heard day after day that man could do every thing that he wished, that he could do every thing of himself, and that he alone could help himself. Had the otherwise so noble Pestalozzi made the Bible the foundation of all moral and religious education, I verily believe that the institution would still have been in existence, even as those institutions are still in existence and working with success which were founded by Franke, upward of one hundred years ago, with small means, but in full reliance on God. But, instead of making the pupils familiar with the Bible, Pestalozzi, and those of his assistants who gave the so-called religious instruction, or conducted the so-called morning and evening prayers, fell more and more in each succeeding year into a mere empty moralizing; and hence it may be understood how it could happen that I grew up in this institution, was confirmed there, and for sixteen years led a very active and morally good life, without acquiring even the slightest acquaintance with the word of God. I did, indeed, many a time hear the Bible named, and even heard

Pestalozzi complain that nobody read it, and say that in his youth things had been better in this respect; at the domestic worship on Sundays, and during my confirmation instruction, I also frequently heard individual texts read and arbitrarily explained; but neither I nor any other of the young men obtained any idea of the sacredness and connection of God's word. Just as Pestalozzi, by the force of his personal character, attached most of his assistants to himself for years, so that they forgot themselves as he forgot himself, when good was to be done, so also, and much more, might he have inspired them for the Gospel, and the blessing of God would then have rested on him and them, and the institution would have become a christian seminary. It would not have been necessary on this account to hang out a sign-board with the words "Christian Educational Institution," displayed upon it; on the contrary, the more quietly and modestly Pestalozzi and his assistants had conducted themselves, the more effectively would they have worked, and even the most noisy blusterer would soon have come to perceive how very little he could be and do of himself, and thus would have become capable of learning something from strangers. Perhaps some person or other may be disposed to reproach me with one-sidedness, injustice, or even ingratitude, toward Pestalozzi, and to oppose to my testimony the fact that at Yverdun Pestalozzi employed every Friday morning principally in representing Jesus to us as the great exemplar of love and self sacrifice; or I may be asked whether I have quite forgotten the zeal with which Niederer often gave the confirmation instruction. But, in reply to this, I can only refer to the facts which I have just detailed."

I could add but little to this statement of Ramsauer. When I was in the institution, the religious instruction was given by Niederer, but no stranger was allowed to be present at it. We may form a tolerably correct notion, however, of the manner in which he gave it, from what is said on the subject in the "Report to the Parents."*

"All the elder pupils, (says the report,) receive positive religious instruction twice a week. The guiding thread that is used for this purpose is the course of the religious development of the human race, as described in the Holy Scriptures, from the Mosaic records downward, and, based on this, the pure doctrines of Jesus Christ, as he announced them in his Gospel. We base the teaching of moral duties chiefly on Christ's sermon on the mount, and the teaching of doctrines chiefly on St. John's Gospel. The latter is read connectedly and explained from itself and from Christ's eternal fundamental view of God and of himself, as the visible image and representative of the god-head and the god-like, of the relation of mankind to God, and of the life in God. We seek, by the example of Christ, and by the manner in which he viewed and treated men and things and their relations, to awaken in the children an intuitive leaning toward the life and conduct, the belief and hope, which are founded in the unchangeable nature of religion, and to render these things habitual to them, and by the development of those graces through which the Father shone in Him, to raise them to such a mind and mode of life, that God may shine in them also. We do not combat religious error, but endeavor to impart only religious truth. We seek the ground of all dogmas and the source of all religious views in the nature of religion, in the nature of man, and in his propensities, powers, wants, and relations, in order that the child may learn to distinguish the truth in every garb and the substance in every form. The course pursued for the attainment of the last-named object, or the elementary religious instruction, preparatory to the positive doctrines of revelation, is based specially on the solution of the following questions: 1. What is the original religious capability in human nature, or what are the elements of all religious development and education, in so far as they exist in man himself, and proceed from him as something implanted in him by God? These elements are perceptions and feelings. 2. By what means and in what manner must these primitive religious perceptions and feelings necessarily be excited and brought to consciousness in him? Here it is especially the relation to father and mother, to nature, and to society, that is

* There is no doubt that this passage is from Niederer's pen.

regarded as a means of religious excitation and education. 3. By what means and in what manner does man originally and necessarily express the religious perceptions and feelings excited in him? And to what does all this lead man? We find here principally the expression of the religious disposition as a gesture; the expression of the religious notion as a word; the expression of the religious contemplation as an image. The first develops itself as ceremony, the second as instruction and doctrine, the last as symbol and image-worship. With the course of this development is connected the development of what utters itself unchangeably in human nature as veritable and eternal religion, every where operative, and of what, as sensual degeneracy, errors of the passions, and personal depravity, leads to superstition and infidelity, to idolatry and image-worship, to hypocritical self-delusion and deception of others, and lastly, to the contemptuous rejection of all that is divine and sacred. The pupil finds the key to the clear comprehension of this in the intuitive consciousness of the awaking and course of his own feelings, in the impressions which things make on his own mind, and in the religious arrangements by which he is surrounded. As matter of fact, the whole is exemplified in the history of the religious culture of mankind. The indication thereof, or the thread to which the explanation must be attached, in giving the instruction, exists in the language of every nation. The most important results to be accomplished by the instruction are: That the pupil shall lay hold of the true and the eternal in their origin; that he shall look upon the human race as essentially religious, and as an organic whole, developing itself according to necessary and divine laws; that, understanding also in its origin and in its consequences the fall from God and the god-like, he shall all the more earnestly and faithfully follow the way of return to God and to the life in Him, so that, being thus prepared, he may comprehend the worship of God in spirit and in truth, the significance of the eternal Gospel; so that he may attain to an inward godly existence, as he lives outwardly in an intelligent existence."

I have quoted the whole of this passage, because it shows how far the religious instruction was removed from all believing fervor and childlike simplicity, from christian simplicity, as we meet with it in Luther's small catechism. But this passage characterizes only the religious instruction in the institution, and by no means Pestalozzi's religious views and practice.

Still it is clear that at Yverdun he also had in view much less moral education than intellectual. He wished, by means of the latter, to lay before the world striking results of the method; but how shall he show passing strangers the results of moral education, a humble mind and a loving heart, or shall he even expose them rudely to public gaze by an examination? To which was added, that in the multitude of boys he despaired of being able to take each one individually to his heart as a father would do, who never loves his children only *en masse*.

I now return to Pestalozzi's writings, and come to those which he wrote in his old age.

In several of his addresses to the inmates of his house, there are passages which bear witness that even during the years which he passed at Yverdun, christianity still lived in his inmost soul; peaceful Sabbath and festival tones soar above the restless and noisy week-day work. So in his Christmas address of 1810.

"I have been told by old people, (he said,) and I have partly seen myself,

that Christmas Eve used to be a night like no other. The day of the highest earthly joy was not its shadow. The anniversary of the deliverance of the country from slavery, the anniversary of freedom, was not to be compared to it. It was quite a heavenly night, a night of heavenly joy. In its still service dedicated to God, resounded the words: 'Glory to God in the highest, and on earth peace, good will toward men.' When the angels still assembled, as it were, over the heads of men, at this hour, and praised God that the Saviour of the world was born,—what a night was Christmas Eve! Who can describe its joy? Who can tell its bliss? The earth was, on that night, transformed into a heaven. On that night, God was celebrated on high, peace was on earth, and men showed a cheerful good will. Brothers, friends, children, could I but carry you back into the old christian world, and show you the celebration of this hour in the days of innocence and faith, when half the world still accounted it a small thing to die for the faith in Christ Jesus! Could I but show you the joy of Christmas Eve in the picture of those days! The heart full of the Holy Ghost, and the hand full of human gifts—thus stood the christian at this hour in the circle of his brethren. Thus stood the mother in the circle of her children. Thus stood the master in the circle of his workmen—the gentleman in the circle of his own people. Thus stood the commune before their pastor—thus went the rich man into the chamber of the poor. At this hour, enemy held out to enemy the hand of reconciliation. The sinner knelt down and wept over his transgressions, and rejoiced in the Saviour, who forgave him his sins. The hour of heavenly joy was the hour of heavenly sanctification. The earth was a heavenly earth, and the abode of mortal men emitted odors of immortal life. May the joys of this hour, may the joy at the birth of our Redeemer, so elevate us, that Jesus Christ may now appear to us as the visible divine love, as he sacrificed himself and gave himself up to death for us. May we rejoice in the hour in which he became man, because he brought into the world for us the great gift of his life, and laid it upon the altar of divine love. From this hour, he was the priest of the Lord, sacrificed for us. Friends, brothers, sisters, let us pray; O God, give us them again, those fair days of the world, in which the human race truly rejoiced in the birth of Jesus Christ, the Redeemer. Give us again the times in which the hearts of men were at this hour, full of the Holy Ghost, and their hands full of human gifts for their brethren. Father in heaven, thou wilt give us them again, if we but truly desire them."

In the address already mentioned, which Pestalozzi delivered in 1818, when he was seventy-two years old, occur passages which make a profound impression on the mind. He there declares that happiness is to be expected from christianity alone.

"The artificial spirit of our times, (he says,) has also annihilated the influence which the religious feeling of our fathers exercised upon this centre of human happiness. This religious spirit which caused the happiness of the quiet and circumscribed domestic relations, has sunk down amongst us into an insolent spirit of reasoning upon all that is sacred and divine; still we must also acknowledge that the prime source of the real poison of our artificiality, namely, the irreligious feeling of the present age, seems to be shaken in the very depths of its destructive powers; the blessed spirit of the true christian doctrine appears to strike deeper root again in the midst of the corruption of our race, and to preserve inward purity of life in thousands and thousands of men, and, indeed, with regard to popular education, it is from this quarter alone that we can derive the expectation, that we shall ever attain to measures really calculated to reach with sufficient efficacy the views, dispositions, appetites, and habits of our present mode of life, which we must look upon as the original source of our popular depravity and the misfortunes of our times."

The conclusion of the address is particularly important:—

Friends, brothers, become renovators of my house, restorers of its old spirit, and witnesses that the spirit of my youth, which is seen blossoming in 'Leonard and Gertrude,' and nearer maturity in 'How Gertrude teaches her children,' still lives in me. In that spirit, become joint founders of the present result of

the old original, philanthropic and beneficent purpose of my institution. In that spirit, and in no other, I call you all, who are members of my institution, to a sacred union in and through love. Love one another, as Jesus Christ loved us. 'Love suffereth long, and is kind; love envieth not; love vaunteth not itself, is not puffed up, doth not behave itself unseemly, seeketh not its own, is not easily provoked, thinketh no evil; rejoiceth not in iniquity, but rejoiceth in the truth; beareth all things, believeth all things, hopeth all things, endureth all things.' Friends, brothers, bless them that curse you, do good to them that hate you. Heap coals of fire on the heads of your enemies. Let not the sun go down upon your wrath. If thou bring thy gift to the altar, first be reconciled to thy brother, and then come and offer thy gift. All unrelenting severity, even toward those who do us wrong, be far from our house. Let all human severity be lost in the gentleness of our faith. Let no one among you attempt to excuse his severity toward those who are in the wrong. Let no one say that Jesus Christ did not love those who did wrong. He did love them. He loved them with divine love. He died for them. He came not to call the righteous, but sinners, to repentance. He did not find sinners faithful, but made them faithful. He did not find them humble, but made them humble, by his own humility. Verily, verily, it was with the high and holy service of his humility that he conquered the pride of sinners, and chained them by faith to the heart of his divine love. Friends, brothers, if we do this, if we love one another, as Jesus Christ loved us, we shall overcome all the obstacles which stand in the way of our life's purpose, and be able to ground the welfare of our institution upon the everlasting rock, on which God himself has built the welfare of the human race, through Jesus Christ. Amen."

At the grave, I have asked after Pestalozzi's confession of faith; I have sought it in his writings, as well as in his life, and communicated to the reader what he himself confessed in 1793 about his christianity at that period of his life, when, perhaps, he had separated himself furthest from Christ, and lived only in a speculative and political element. "Wavering, (so went the confession,) between feelings which drew me toward religion, and opinions which led me away from it, I went the dead way of my time." This confession we have found confirmed in his writings, as in his life; but in his earliest, and again in his latest writings, religious feeling has been seen soaring above a sceptical intellect. And throughout his long life how high soars a love which would not despair under any suffering, any ingratitude; how high it soars above all doubts, in the pure air of heaven! Men are seduced into infidelity by superficial reflection, which, misapprehending and over-estimating the measure of insight possible to man, fails to judge aright where a clear self-knowledge believes with intelligent resignation. But Christ, who takes the strong for his spoil, reigns ever in the inmost heart of christians as *episcopus in partibus infidelium;* even in times, when their faith wavers, he remains faithful to them. This we see in Pestalozzi, both in his words and in his works.

Who shall dare cast a stone at him, who shall dare condemn him? To him shall much be forgiven, for he loved much. Aye, the whole of his toilsome life is pervaded by love—by a yearning desire to alleviate the condition of the poor suffering people. That love was the

passion of his heart; it kindled in him a burning anger against all who stood in the way of the attainment of its object.

It is true, that the chief obstacle in his way was himself. With God, counsel and action go together; with men, they are only too often separated. Thus we have seen that Pestalozzi, with the clearest knowledge of men, was incapable of managing and governing them; with the most amiable ideals, he was blind when he had to show the way to those ideals. Nay, in endeavoring to realize his great conceptions, he frequently took the course most opposed to them.

No one was further than he was from a cleanly domestic existence; yet no one desired such an existence more earnestly, or understood its value better, than he did. The delineations of Gertrude's housekeeping prove that a poet can truthfully depict not only what he possesses in full degree, but what he longs for with his whole heart because he lacks it altogether.

He passed the greater part of his life in pressing want: thus he could scarcely fail to feel a true and spontaneous sympathy with the poor and abandoned.

If he was cynical in evil days from necessity; in better days, he was so on principle. Corresponding to the bodily cynicism, there was in the character of his mind, something which I would call, not spiritual poverty, but intellectual cynicism: an aversion to the aristocracy of education. And yet, as one of the contradictions of which his character is full, he felt himself called to lay new foundations under the lofty structure of this education, instead of the old pernicious ones. He wanted to support the upper story of the building, without troubling himself about that story itself. On one occasion, he even made it the subject of a boast, that he had not read a book for thirty years.

Hence it came, as I have already said, that he committed so many mistakes usual with self-taught men. He wants the historical basis; things which others had discovered long before appear to him to be quite new when thought of by himself or any one of his teachers. He also torments himself to invent things which had been invented and brought to perfection long before, and might have been used by him, if he had only known of them. For example, how useful an acquaintaince with the excellent Werner's treatment of the mineralogical characters of rocks would have been to him, especially in the definition of the ideas, observations, naming, description, &c. As a self-taught man, he every day collected heaps of stones in his walks. If he had been under the discipline of the Freiberg school, the observation of a single stone would have profited him more, than large heaps

of stones, laboriously brought together, could do, in the absence of any such division.

Self-taught men, I say, want the discipline of the school. It is not simply that, in the province of the intellectual, they often find only after long wanderings what they might easily have attained by a direct and beaten path; they want also the ethical discipline, which restrains us from running according to caprice after intellectual enjoyments, and wholesomely compels us to deny ourselves and follow the path indicated to us by the teacher.

Many, it is true, fear that the oracular instinct of the self-taught might suffer from the school. But, if the school is of the right sort, this instinct, if genuine, will be strengthened by it; deep-felt, dreamy, and passive presentiments are transfigured into sound, waking, and active observation.

This self-taught character of Pestalozzi's mind showed itself in his treatment of several branches of instruction. What are his names of towns, which he takes in alphabetical order from the index of a geography book, without possessing any knowledge of the subject; what are the heaps of words transcribed from Scheller's Lexicon: what else are they but the trials of an undisciplined mind, to find out new ways of writing schoolbooks?

But when the self-taught man forsakes the old highways, he finds, in spite of much going astray, many short by-ways, the knowledge of which is welcome to the students of the subject, and induces them to make new experiments themselves. In this manner, Pestalozzi exercised an influence even upon his adversaries.

Generally, Pestalozzi's personal influence on the methods of teaching particular subjects was small; but, on the other hand, he compelled the scholastic world to revise the whole of their task, to reflect on the nature and destiny of man, as also on the proper way of leading him from his youth toward that destiny. And this was done, not in the superficial rationalistic manner of Basedow* and his school, but so profoundly, that even a man like Fichte anticipated very great things from it.

But it is to be lamented, that the actual attempts made by Pesta-

* Basedow founded an educational institution called the "Philanthropin," at Dessua, in 1774. In this institution, the educational views of Rousseau, as expounded in his "Emile," were exclusively followed, and every effort made to realize them. Rousseau was at that time the pharos of many educationists in Germany and Switzerland, as he was the pharos of the men of the revolution in France. The Philanthropin excited a good deal of attention at the time. The name of the Philanthropin still survives, but it has almost become a term of reproach to signify any shallow educational enterprise. It appears, however, that, together with much that was whimsical and even foolish, the institution presented many honest and unselfish efforts on the part of faithful workers, and produced many wholesome fruits.—*See Raumer's account of the Philanthropin.*

lozzi and his fellow-laborers to set up new methods of teaching various subjects, have met with such especial approbation and imitation. An examination of Pestalozzi's profound principles, and an insight into the contradiction between these principles and his practice, would have conduced much more to the discovery of new methods, really answering to the principles. This is appplicable, for instance, to what I have said upon the exercises in observation, falsely so called. Most of the imitators of the great man have fallen in love with his dark side, the endeavor to mechanise education. When those purely external appliances and artifices which he employed for mechanising education shall have been so modified as to be no longer recognizable, or shall have been entirely laid aside and forgotten—then Pestalozzi's "Leonard and Gertrude," the "Evening Hour of a Hermit," and "How Gertrude teaches her Children," will still live on and exercise an influence, though even these works, like every thing else that is human, are not altogether free from spot or blemish. Profound thoughts, born of a holy love under severe pains, they are thoughts of eternal life, and, like love, shall never cease.

[To the above connected survey of the Life and System of Pestalozzi, by Karl von Raumer, we shall add in subsequent numbers of the Journal—

I. Summary of the Educational Principles, Methods and Influence of Pestalozzi, by Dr. Blochmann, Dr. Diesterweg, and other German, French and English Educators.

II. Biographical Sketches of Krüsi, Schmid, Niederer, Tobler, Buss, Ramsauer, and other Associate Teachers and Disciples of Pestalozzi.

III. Extracts from the principal publications of Pestalozzi.

IV. List of Publications relating to Pestalozzi and his Educational system.

V. Influence of Pestalozzi on the Aims, Principles and Methods of Popular Education.]

V. INSTITUTIONS AND INSTRUCTION FOR THE BLIND.

BY L. P. BROCKETT, M. D.

CAUSES AND EXTENT OF BLINDNESS.—Blindness, though congenital in many instances, is less frequently so than deafness. When congenital, its causes are generally analogous to those which induce idiocy, deafness and insanity. Intermarriage of near relatives, scrofula, or other diseases of parents, and intemperance on the part of parents, are very common causes. There are many cases, however, which can not be thus accounted for. Blindness occurring subsequently to birth, is usually the result of prevalent ophthalmia, conjunctivitis, iritis, cataract, amaurosis or gutta serena, small pox, measles, accidents from powder, blows on the eye, &c. Of the diseases enumerated prevalent, ophthalmia and amaurosis are most fatal to sight. The latter, which consists in paralysis of the optic nerve, is very seldom cured. It was the cause of Milton's blindness. The diseases of the eye have of late years received much attention, and eminent men have made their treatment a specialty. Most of our large cities have hospitals or infirmaries devoted to the treatment of these diseases, and Jones, Lawrence, Mackenzie, Hays and others, have published treatises on the subject. The operation for the cure of Strabismus or squinting, which some years ago was very common, is less resorted to at the present day than formerly. The operations for cataract, (couching or depressing and dividing the lens, to remove it from the field of vision,) have resulted in the partial restoration to sight of many blind persons.

The statistics of blindness, in different countries, reveal some singular facts. As we proceed toward the Equator, the proportion of the blind to the entire population increases with great rapidity, and the same is observable in very high latitudes. M. Zeune, the late accomplished director of the Institute for the Blind at Berlin, some years ago prepared a table on the subject, which subsequent observations on the Eastern Continent have very nearly verified. The following were the results at which he arrived:

Between	20°	and	30°	N. L.	ratio of blind to inhabit.	is 1 to	100
"	30°	and	40°	"	"	" 1 to	300
"	40°	and	50°	"	"	" 1 to	800

Between	50° and 60°	N. L.	ratio of blind to inhabit.	is	1 to 1,400
"	60° and 70°	"	"	"	1 to 1,000
"	70° and 80°	"	"	"	1 to 550

The white glittering sand, and the intense heat of the sun, shining always from a clear sky, in Egypt and Northern Africa, causes diseases of the eye, and especially ophthalmia, to be very prevalent in those regions, and similar causes prevail, though to a less extent, in Southern Europe.

Among the densely populated nations of Central Europe, accidents with gunpowder, small pox and other epidemic diseases, are the most frequent causes of destruction of sight. In the temperate regions of the north, the number of the blind is comparatively small; but as we approach the Arctic circle, the glittering snows, the smoky dwellings, the alternation from the brilliant nights of the Arctic summer, to the deep darkness of the Arctic winter, all exert their influence upon the visual organs.

On this side of the Atlantic, however, a different ratio seems to prevail. We have not the means for an accurate comparison except of the latitudes between 30° and 45°; but the proportions are very different from those embodied in M. Zeune's table. The ratio of the blind to the entire population of the United States is 1 to 2,328. The states lying between the parallels of 30° and 35° have 1 to 2,525 inhabitants; between 35° and 40°, 1 to 1,750; between 40° and 45°, 1 to 2,460.

Comparing these statistics with those of most of the countries of Europe, we find a great predominance in favor of the United States.*

According to M. Dufau,

Prussia	has 1	blind	person	to 1,401	inhabitants.
Belgium	" 1	"	"	1,316	"
Germany	" 1	"	"	1,300	"
France	" 1	"	"	1,357	"
Sweden	" 1	"	"	1,091	"
Norway	" 1	"	"	566	"
Switzer.	" 1	"	"	1,570	"
Egypt	" 1	"	"	97	"

In Prussia $\frac{1}{4}$ of the number are under 15 years of age. In Sweden only $\frac{1}{10}$ of the whole number.

The number of the blind in	France	is about	33,000
" " "	G. B. & Ireland		25,000
" " "	Russia		50,000

* It is questionable, however, whether the U. S. Census of 1850, is as complete and reliable as those of European countries.

The number of the blind in Germany	30,000
" " " United States	10,000

In Southern and Central Europe the number of blind males exceed the females; in Northern Europe, on the contrary, the females exceed the males.

INSTRUCTION OF THE BLIND.—Although individuals among the blind have, in all ages, attained to a fair amount of education, yet it does not seem that the idea of making provision for their education, as a class, entered into the minds of either Greek or Roman. They procured a precarious subsistence by begging by the wayside, or at the entrance of the temples; but there was no one who would teach them more honorable means of obtaining a livelihood, or rescue them from the inseparable evils connected with a life of mendicancy. Nor amid the noble and philanthropic reforms introduced by christianity, was there any provision made for the training and instruction of the blind. They begged on as before, though now frequenting the doors of christian churches, instead of heathen temples, and asking alms in the name of Christ instead of Æsculapius. There were in each age, however, some, who feeling themselves moved by the impulse of genius, sought for more elevated society, and more ennobling pursuits, than the beggar's position and employment. The first public provision ever made for the blind is believed to have been the founding of the Hospice des Quinze-Vingts at Paris, by Louis IX., better known as St. Louis, in 1260. It was established by the kind-hearted monarch for the benefit of his soldiers who, in the campaigns in Egypt, had suffered from ophthalmia. As its name implies, it was intended for fifteen score or three hundred blind persons; though for many years past, the number of inmates has been about 400, including the families of the blind, who are also domiciled within its walls. Its annual income is about $80,000. The allowance to a blind man is $89 per annum; if he is married this is increased to $110; if he has one child, $120; if two, $130.50; and so on, adding $10.50 for each child. Besides these, it has about six hundred pensioners, who do not reside at the hospital, but receive according to their age and circumstances, $20, $30 or $40 per annum, to aid in their support; some of those entitled to a residence in the Hospice, prefer to remain with their families, in other parts of the city; to these a pension of $50 per annum is paid; no instruction is attempted, and the temptations to a life of indolence are such as to render this asylum any thing but a model institution.

A similar, but less extensive institution, was established at Chartres, in the latter part of the thirteenth century; and in 1350, was

further endowed by king John, so as to accommodate 120 blind persons. From a variety of causes, the number of inmates dwindled, till in 1850 there were but ten.

During the sixteenth century, thoughtful and benevolent men, who had seen with interest the sad fate of the blind, sought to devise a process for their instruction, but with no great success. Attempts were made to print for them in intaglio, that is, with letters depressed below the surface; but finding these illegible to the touch, experiments were made with raised letters, which were so constructed as to slide in grooves; these proving inconvenient, an attempt was made by Pierre Moreau, in 1640, to cast letters in lead, of more convenient form, but from some cause his plan was not successful.

In 1670, the Padre Lana Terzi, a Jesuit of Brescia, who had already published an essay on the instruction of deaf-mutes, appeared before the public with a treatise on the instruction of the blind.

Nearly a century later the Abbé Deschamps, and Diderot, the associate of D. Alembert in the Encyclopedia, proposed plans for their instruction in reading and writing.

In 1780, Weissemburg, a blind man of Mannheim, in Germany, published geographical maps in relief.

It was not, however, till 1784, that Valentine Haüy, "the Apostle of the Blind," as the French people have appropriately named him, commenced his labors in their behalf. Attracted at first to humanitarian labors, by the brilliant example of the Abbé De l-Epée, and to this particular department of them, by seeing a burlesque concert of blind performers, he devoted himself to the mode of instructing the blind, with a zeal and ardor which gathered new strength from every obstacle. His first pupil was a young blind beggar, whom he paid a stipend, in place of his acquisitions by begging, and who soon proved an apt scholar. The approbation of the Academy of Sciences and Arts, and the patronage of the Philanthropic Society, encouraged him to further exertions, and in 1786, his pupils, 24 in number, were called to exhibit their attainments, in the presence of the king and royal family, at Versailles. The royal patronage was secured for the new enterprise, and for a while all went on prosperously; the school increased in numbers and popularity, its pupils became eminent as musicians or mathematicians, and Haüy and his school were objects of interest to all.

In 1791 a change came. The Revolution was fairly inaugurated, the Philanthropic Society was broken up, and many of its members were wandering homeless, in foreign lands. The school for the blind was taken under the patronage of the state, and its support decreed;

but as one assembly succeeded another, and the *reign of terror* made the nation bankrupt, the sum decreed for its support was paid only in assignats, which, ere long, became almost worthless. Haüy and his blind pupils worked at the printing press, procured in their more fortunate days, and eked out existence by the severest toil. It is said that Haüy for more than a year confined himself to a single meal a day, that his pupils might not starve. At length brighter days began to dawn, and prosperity seemed about to revisit them; when they were startled with the intelligence, that the Directory had united them with the inmates of the Hospice Quinze-Vingts, and that thenceforth these unfortunate children were to be exposed to the infectious example of the indolence and vice, so rife, at that time, in that great asylum. Overwhelmed by this intelligence, Haüy, who could not bear to see the fruits of seventeen years of arduous toil thus wasted, resigned his office as superintendent, and after a brief but unsuccessful effort at private teaching, went, at the invitation of the Czar, to St. Petersburg, where he founded an institution for the blind, which still exists.

His place was supplied for twelve years by an ignorant and incompetent director, under whom the school had nearly lost all its earlier reputation, retaining only its musical fame, and this more from the efforts of some of Haüy's old pupils, than from any new instruction.

In 1814 the government became satisfied that a great error had been committed in the union of the two institutions, and assigned separate quarters and ampler funds to the school for the blind, which again, under the patronage of royalty, assumed the title of the "Royal Institution for Blind Youth." A Dr. Guillié was appointed director, a man of energy and tact, but malicious, untruthful, and excessively vain. He expelled at once from the school those whose morals had been contaminated by their associations at the *Hospice*, and reorganized it with great pomp and parade. Every thing was done for show; manufactured articles were purchased at the bazaars, and exhibited as the work of the pupils; Latin, Greek, German, Italian and Spanish, were professedly taught, and the pupils made excellent public recitations in them by the aid of interlinear translations, while at the same time, not even the most elementary instruction in arithmetic or history, was given, and although a few pupils could play some tunes brilliantly, the great mass could not even read music.

Dr. Guillié seemed to regard any reference to Haüy as a personal insult; the very mention of his name was interdicted, and every thing he had done studiously attributed to some one else. This system of deception could not last; the government ordered an investigation,

and unable to endure the scorn which followed the report of the commissioners, Dr. Guillié resigned in 1821. Dr. Pignier was appointed his successor, and though a man of truth and honor, his education, which had been entirely in the monkish schools, rendered him utterly unfit for the post. With the best intentions, the financial and educational condition of the school was constantly growing worse. At length in 1840, the government undertook in earnest its reform. Ordering the erection of new buildings in a more healthful location, they appointed a commission to reform and reorganize the school. On the report of that commission, M. Dufau, who had been for twenty-five years, a teacher in the institution, was appointed director, and has continued in that position up to the present time. M. Dufau is eminently qualified for the place, and has filled it with signal ability. Under his administration, the finances have greatly improved, the course of instruction has been lengthened and systematized, and a judicious course of elementary works having been prepared and printed in relief, the progress of his pupils has been rapid in all the studies they have undertaken. The work department has also been thoroughly reorganized, a society established for the assistance of blind workmen, and the wants of the blind very thoroughly cared for.

Indeed, this school, while the oldest, is also, in every respect, the best in Europe.

In order to give a just idea of the course of instruction adopted in the training of the blind, we give the following statement of the division of time, and the course of study pursued in the Paris institution, from M. Dufau's work "*Des-Aveugles:* The pupil rises at six o'clock in the morning; from this time till eight, he studies or works; at eight, breakfast; from half past eight till half past ten, classes; from half past ten to noon, study or work; at noon, dinner; at one o'clock, reading by divisions, according to age; from half past one to seven, musical classes, or other studies and work, this interval being only broken by a collation, at half past three; at seven, supper, after which, study and reading until nine; at nine all go to bed. Each repast is followed by a half hour's recreation. The studies are thus arranged: *Primary course.*—First year, reading, writing in points, sacred history, elements of music; second year, French grammar, ancient history, geography, arithmetic, elements of music, wind or string instruments; third year, French grammar, Roman history, geography, arithmetic, vocalization and singing, piano and other instruments; fourth year, grammar, arithmetic, national history, history of France, vocalization and singing, instrumental instruction. *Higher course.*—First and second years, rhetoric, literature, philosophy,

political geography, general history, geometry, physics and cosmography, harmony, and the use of musical instruments; third and fourth years, moral science, political economy, and musical compositions, instruction on the organ or other instruments.

The tuning of pianos is added to musical studies, in the last year, by those who are destined to follow that business. Those who intend to follow a trade, confine themselves to the workshop, during the second period of four years studying, two hours a day only.

Among the schools for the blind on the continent, after that at Paris, those at Vienna, Berlin, Amsterdam and Lausanne, have attained the highest reputation, for the useful and thorough training of their pupils, and the number of eminent scholars which they have graduated.

The British schools for the blind have never taken a high stand in their literary training. Those of Edinburg, Glasgow, Bristol, Norwich and York, devote more attention to intellectual culture than the others; but the utmost limit attained even in these is the acquisition of a knowledge of the mere rudiments of geography, arithmetic, history, and perhaps grammar. The attention of the pupil is mostly confined to industrial pursuits, basket and mat making, the manufacture of mattresses, &c. In the United States, larger and more liberal views have prevailed. The "Perkins Institution and Massachusetts Asylum for the Blind," founded at Boston, in 1833, through the influence and energetic efforts of Dr. Howe, and the munificence of Col. T. H. Perkins, has, from the first, aimed to give the blind an education, which should fit them for any position in life which their infirmity might allow them to fill; and the same spirit has pervaded the teaching of the New York, Philadelphia, Columbus, and Jacksonville schools, and to a considerable extent, the smaller institutions in other portions of the country.

The time of instruction embraces from six to eight years, and includes a course in mathematics and belles-lettres, as extensive as that in most of the colleges of the country; and a full and thorough musical training. The languages are not usually taught.

There are besides the European Institutions for the blind, of which we gave an incomplete list in a previous number, [No. 9, p. 484,] of the Journal, the following, and perhaps some other asylums, industrial establishments and hospitals for the blind in Europe, in which instruction in reading or the other branches of education, is not required. In many of them the inmates are received for life:

Hospice de Quinze-Vingts, Paris, has 400 inmates, 600 pensioners, income, $66,000.

Society for aid of Blind Workmen, Paris, 20 inmates, income in 1850, $2,860, expenses, $1,820.

Blind Sisters of St. Paul, at Vaugirard, 100 inmates.

Little Blind Brothers of St. Paul, near Paris.

House of Labor for the Adult Blind, Vienna, 60 inmates, income, $8,900, expenses, $7,800.

Hospital for the Blind, Vienna, on the model of the Hospice Quinze-Vingts.

Industrial Asylum for the Adult Blind, Berlin, 20 inmates.

The Crèche, or Hospital for Young Blind Children, Berlin.

Workshop for Blind Laborers, Berlin.

Hospital for the Blind, Berlin. } These are asylums rather
Hospital for the Blind, St. Petersburg. } than hospitals.

Simpson Hospital for Blind and Gouty Persons, Dublin.

Molyneux Asylum for Blind Females, Dublin.

Limerick Asylum for Blind Females, Limerick.

London Asylum for the Blind, London. } These are departments of the institution for the blind, furnishing a home and comforts to the aged and infirm blind.
Jewish Asylum for the Indigent Blind, London. }

Asylum for the Indigent Blind, Amsterdam, 30 inmates.

PRINTING FOR THE BLIND.—It was not long after Haüy commenced the instruction of his blind pupils, that he became convinced of the necessity of devising some mode of printing, by which touch might supply the place of sight to the reader; and after revolving several plans in his mind, accident finally suggested the best method. Sending his pupil Lesueur to his desk one day for some article, the young man found there a printed card of invitation, which had received an unusually strong impression; passing his fingers over the back of the paper, he distinguished the letter *O*, and brought the paper to Haüy to show him that he could do so. The philanthropist saw at a glance that the principle of printing for the blind was discovered, and that it was only necessary to perfect the process. He experimented for a long time on the form of letters best adapted to be read by touch, and finally adopted the Illyrian, which, from the square form of the letter, seemed to offer more distinct points of recognition than any other; but unfortunately his letters were too large, and the embossing so imperfect, as to make it difficult for those whose tactile sensibility was defective, to read them. His successor, Dr. Guillié, adopted a different form of letter in the place of the Illyrian, and boasted greatly of the perfection of his type; but the twenty-two volumes published by him were found illegible by the

blind, and were mostly sold to the shops for refuse paper. Dr. Pignier, who succeeded him, probably introduced the script letter, which, with some modifications to promote greater sharpness of embossing, is still used on the continent at Paris, Berlin, Vienna, Peath, Amsterdam and St. Petersburg, in all of which cities printing for the blind has been executed.

In England, Mr. James Gall, Principal of the Edinburg Institution for the Blind, commenced, in 1826, a series of experiments with a great variety of alphabets, with a view of ascertaining which was best adapted to the purposes of the blind. The alphabet upon which he finally fixed is known as Gall's triangular alphabet. He published several small books in it, but repeatedly modified its form, till at last it approximated to the Roman alphabet. These books have never come into general use among the blind, although quite legible. They were printed in 1832, and the five following years. A more popular and attractive form of letters was adopted, nearly simultaneously, in Great Britain and in the United States. It is known in the former country as Alston's, and in the latter as the Philadelphia letter. It is the Roman capital, with a light sharp face, and deprived of the serifs or hair lines, forming a type analogous to that known among type founders and printers as sans-serif. Dr. Fry is said to have been the first to suggest its use in England, and Mr. Friedlander, the founder of the Philadelphia School for the Blind, had, at a period somewhat earlier, adopted it here. Dr. Russ, the founder of the New York Institution, devised a phonetic alphabet in 1833, which possessed considerable merit, but did not come into use to any great extent. The alphabet for the blind, which is most generally used in Great Britain and America, is the Boston letter, invented and perfected by Dr. S. G. Howe, the founder of the Perkins Institute for the Blind. Its peculiarities, which it would be easier to distinguish than to describe, are, the angular form of the letters; the rigid adherence to what printers call "lower case" letters; the marked distinction between those which are ordinarily most nearly alike in form; its compactness, and the sharpness and perfection of the embossing. On account of these qualities, which rendered it more easily legible by the blind than any other, and reduced the cost of printing, the jury on printing, at the London Crystal Palace exhibition, gave it their preference over the other styles of type for the blind. The number of books in this letter is much greater than in any other.

We have already adverted to Dr. Russ' invention of a phonetic alphabet; the introduction of arbitrary characters has been repeatedly attempted in printing for the blind, and with all the advantages of

large funds to prosecute the work; but it has proved practically a failure, because the blind have found it more difficult to acquire these arbitrary alphabets than the ordinary English letters; and because their use in writing or reading would only put them in communication with the few who had acquired these systems, and thus would lead to the greater isolation of the blind as a class.

Three of these alphabets have been put forth in England, and in each there have been several books, (the Scriptures among the number,) published, and each has been proclaimed as an advance on every previous method of teaching the blind. They are known as Lucas', Fresre's and Moon's, the inventors being principals, respectively, of the Bristol, London and Blackheath, and Brighton Asylums for the Blind.

We ought not to omit here a reference to an ingenious apparatus used as a substitute for books and manuscripts, which was the joint invention of two blind men, Messrs. Macbeath and Milne of the Edinburg Institution, in 1830. We allude to the string alphabet; a mode of designating, by the form and distance of knots, on a cord, the different letters of the alphabet; this invention, though cumbrous and capable of material improvement, was, for many years, in use in the Edinburg Institution, though never generally adopted elsewhere.

The great cost of printing books for the blind, in consequence of their bulk, and the small editions required, has rendered the supply, very scanty, aside from the Scriptures and the text-books in use in the different institutions. There were in 1856 but forty-six miscellaneous books in English, printed in relief, unless we include those printed in the arbitrary characters, which aside from the Scriptures, amounted to nine volumes more. Many of them are quite small, some comprising only a very few pages; yet these fifty-five volumes, if sold at actual cost, would amount to about seventy dollars. Provision should be made by the governments of Great Britain and the United States, for a fund, to be devoted to the production of books for the blind.

The variety of books, published for the blind on the continent of Europe, is still smaller. The French catalogue, which is by far the largest, contains, besides the necessary text-books, only a very few religious books, lives of the saints, &c. The Dutch catalogue has but twelve volumes in all, several of which are single books of the Scriptures; nor are the others more extensive.

The printing of music for the blind, which seems a necessity, from the resource which it furnishes for a comfortable livelihood to many of them, has been a very expensive and difficult matter, so much so,

that music is to a very great extent committed to memory by the pupils of blind institutions. This difficulty has been obviated, by an ingenious system, invented by a French teacher in the institution at Paris, himself blind, M. Louis Braille.

It has always been a problem extremely difficult of solution, to teach the blind to communicate their ideas by writing, in such a way that they themselves should be able to read what they had written. By a very simple apparatus, they could be taught to write with considerable rapidity; but the words once committed to paper would be lost to them; tangible inks, intaglio type, pin type, a small printing apparatus, all were tried, and each found in some respect objectionable. M. Ch. Barbier, in 1825, had invented a system of writing with points, in which he represented, by certain arrangements of points, about forty sounds. His plan was faulty, both as a phonetic system, and a system of writing, requiring as it did, the use of ten or twelve points for almost every sound. M. Louis Braille modified Barbier's system completely, rendering it far more simple, and representing by each character some letter or combination of letters. His plan is based upon a series of fundamental signs comprising the first ten letters of the alphabet; none of these consist of less than two, nor more than four dots. A second series is formed by placing one dot at the left of each fundamental sign; a third by placing two dots under each sign; a fourth by placing one under the right side of each. By prefixing a character comprised of three dots, the first ten are used as figures; by prefixing another the last seven of the fundamental signs represent musical characters, and here, by a sign peculiar to each octave, he avoids the necessity of designating the key to each musical sentence. The apparatus consists of a board in a frame like that of a double slate, the surface of which is grooved horizontally, and vertically, by lines one-eighth of an inch apart; on this the paper is fastened, by shutting down the upper half of the frame, and the points are made with an awl or bodkin through a piece of tin perforated with six holes, $\frac{1}{4}$ of an inch apart. The perforations are made from right to left, in order that the writing when reversed may be read from left to right. This system has been introduced into the French, Prussian, Austrian, Belgian, Swedish and Dutch schools in Europe, the New York, Maryland and Illinois Institutions in the United States, and the Imperial Institute for the Blind in Rio Janeiro.

From the first commencement of instruction for the blind, music has been a favorite pursuit with them. To many it furnished the means of support; for the blind have often, from their sensitiveness

to sound and the delicacy of their touch, as well as from the careful modulations of their voices, extraordinary qualifications for acquiring great skill in instrumental and vocal music. To some it is an agreeable recreation, and to others a source of pure and intense enjoyment. All, however, can not practice it, and while some find employment in the tuning of pianos, for which a well trained ear and skillful touch are requisite, others are occupied in the manufacture of mattresses, mats, baskets, paper boxes, brooms, brushes, the simpler departments of cabinet work, or in trade.

The capacity of the blind as a class to sustain themselves by their own labor, has been one of those practical questions which hardly admit of a complete or satisfactory solution. All, or nearly all, the schools for the blind have workshops, in which the pupils labor some hours every day, in order to acquire some handicraft, which may aid in their support. Most of the larger institutions of the United States have also connected with them, workshops for the adult blind, either their own graduates or others, where certain advantages of shop rent, machinery, material at wholesale prices, or sale of goods at retail prices, and in some instances board at a reduced rate, or a moderate pension, to aid in paying their way, is allowed. Objections have been made to these measures of assistance, but in the fierce competition for subsistence among the poorer classes, we see not how the poor blind man, who has the loss of sight added to the other disabilities of poverty, is to exist without them.

In one instance, (at Philadelphia,) an asylum has been provided for the aged and infirm blind, where, beguiling the weariness of the passing hours by such light toil as they can readily accomplish, they may pass the evening of life in comfort and happiness.

The British institutions for the blind are mostly asylums rather than schools. In the greater part the blind are received for life; their educational training consists merely in reading, musical instruction, and perhaps the most elementary knowledge of figures; but they are taught trades, and required to work a certain number of hours every day. These institutions are for the most part well endowed, and any deficiency in the results of the labor are made up from other funds. On the Continent there are in the larger cities, asylums of a character nearly corresponding to the Hospice de Quinze-Vingts already described, for the infirm and even the healthy blind. Berlin has especially distinguished itself, for the completeness of its provisions, for every class of the blind. Besides the institute for the young blind, it has a *crêche* or hospital for blind infants; a workshop for blind laborers, furnishing material, and paying a premium to the

blind laborer; an industrial asylum for the blind of both sexes, who have graduated at the institute, and are unable to obtain a complete support elsewhere; and a hospital for blind foreigners, and for the sick, aged and infirm blind.

The blind, as a result of their infirmity, have some peculiarities, though fewer than mere theorists have attributed to them. In youth they are generally very happy, and even gay. As they arrive at adult age, they are more disposed to be restless, uneasy, desirous of change, and discontented with their condition. It is under these circumstances, that some writers have been disposed to charge them, as a class, with ingratitude. The charge is unjust. Individuals among them, as among the seeing, undoubtedly, often manifest an ungrateful disposition; but this is rather the result of the restless disposition already noticed, than of unusual depravity. They are generally endowed with very keen perceptions, and are usually better judges of character than persons who can see. Diderot charged them with being devoid of the idea of modesty or shame, but if this charge was the result of observation, he must have mingled with a different class of blind persons from those found in other countries. That modesty of deportment, which is one of the highest graces of womanhood, is nowhere found in greater perfection than among the blind.

The consciousness of physical weakness, has probably had its effect in rendering them generally less vain than deaf-mutes; while, at the same time, their intellectual faculties are usually of a higher order, and their facility in the acquisition of knowledge is much greater.

GENERAL VIEW OF INSTITUTIONS FOR THE BLIND IN THE UNITED STATES.

NAME OF INSTITUTION.	Location.	Cost or estimated value of Buildings and Grounds.	Date of Opening.	Date of Latest Information.	Number of Pupils.	Number of State Beneficiaries.	Annual Amount received from States.	Annual Current Expenses.	Charge to Paying Pupils.	Name of Superintendent.	Number of Instructors.	Number of Blind Instructors.	Number of Graduates.
Perkins Institution and New England Asylum,	Boston, Mass.,	150,000	1832	1857	114	62	$12,000	$21,600	$200	S. G. Howe, M. D.,	6	3	311
New York Institution for the Blind,	New York,	150,000	1832	1856	185	150	30,000	38,728	200	T. Colden Cooper,	16	11	561
Pennsylvania " " "	Philadelphia,	125,000	1833	1857	136	100	23,500	26,583	200	William Chapin,	17	11	340
Ohio " " "	Columbus,	40,000	1837	1857	93	†..	18,000	18,000	100	Asa D. Lord, M. D.,	8	2	215
Virginia Institution for Deaf & Dumb & Blind,	Staunton,	75,000	1839	1855	35	25	10,000	11,000	160	J. C. Merillat, M. D.,	9	...	93
Kentucky Institution for Blind,	Louisville,	70,000	1842	1857	60	60	11,000	11,000	140	B. M. Patten,	5	2	45
Tennessee " " "	Nashville,	15,000	1844	1855	26	25	4,000	4,500	200	J. M. Sturtevant,	5	3	...
Indiana " " "	Indianapolis,	100,000	1847	1857	73	†..	15,000	15,000	....	J. M'Workman, M. D.,	6	...	...
Illinois " " "	Jacksonville,	80,000	1849	1857	60	†..	14,000	14,000	100	Joshua Rhoads, M. D.,	6	...	8
Wisconsin " " "	Janesville,	45,000	1850	1857	20	†..	7,000	7,000	....	W. H. Churchman,	4	2	...
Missouri " " "	St. Louis,	45,000	1851	1854	21	...	5,000	.....	....	E. W. Whelan,	...	...	...
Mississippi " " "	Jackson,	11,000	1848	1857	20	20	7,000	7,000	....	P. Lane,	...	...	...
Georgia Academy " "	Macon,	*7,300	1852	1857	20	17	4,000	4,000	200	W. N. Candoin,	4	1	6
Iowa Institution " "	Iowa City,	6,000	1853	1855	23	†..	.....	.....	....	Samuel Bacon,	...	...	...
Louisiana Institution for Deaf & Dumb & Blind,	Baton Rouge,	128,000	1852	1855	...	...	5,000	5,000	150	J. S. Brown,	...	...	...
Maryland Institution for Blind,	Baltimore,	.....	1854	1857	17	17	.....	.....	200	I. A. M'Kenney, D. D.,	3	1	...
Columbia Institution, " "	Washington, D. C.,	.....	1857	....	...	...	.....	.....	....	E. W. Gallaudet,	...	...	...
Michigan Asylum for Deaf & Dumb & Blind,	Flint,	150,000	1854	1857	24	‡24	3,000	3,000	....	B. M. Fay,	2	1	...
N. Carolina Institution " " "	Raleigh,	.....	1848	1856	...	...	8,000	.....	....	William D. Cooke,	...	...	...
S. Carolina " " " "	Cedar Spring,	12,531	1855	1856	13	13	7,000	.....	150	N. P. Walker,	3	2	...

* State has since appropriated $20,000. † Free to all the Blind of the State under 20 years of age. ‡ For both Departments.

LIBRARY
OF THE
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Lowell Mason

VI. EDUCATIONAL LABORS OF LOWELL MASON.

Lowell Mason, who is identified with the advancement of musical education in this country, was born in Medfield, Mass., January 8th, 1792. He early manifested a great love for music, and sung, and played on various instruments, almost instinctively. In early youth, he commenced teaching; for which, also, he manifested a strong inclination.

At the age of twenty, he removed from Massachusetts to Savannah, Georgia, where, although engaged in other occupations, the teaching of music, and the conducting of choirs and musical associations, both vocal and instrumental, were leading objects of his attention. During his residence in Savannah, he became deeply interested in Sabbath School teaching, and was, for many years, the superintendent of a large school,—the only one at that time, in the city; and in which all the different Christian denominations united. It was while engaged in this school, that he formed those habits of intercourse with children, which afterward proved so valuable, when teaching became the daily occupation of his life, in the wide sphere of musical instruction in our public schools.

In 1821, the Boston Handel and Haydn Collection of Church Music, of which Dr. Mason was the sole editor, was first published; and, a few years afterward, several gentlemen of Boston, who had been, for some time, engaged in efforts to introduce improvements in church music,—some of whom had become personally acquainted with Dr. Mason, and with the successful results of his musical labors, took measures to obtain his aid and direction in the execution of their plans. Proposals were accordingly made to him to remove to Boston, which were finally accepted; and in the summer of 1827, he took up his residence in that city.

Dr. Mason now commenced the extensive teaching of vocal music in classes, introducing, at once, that feature in musical teaching, which had been but little known before, but which he had successfully pursued in Savannah, the instruction of children; training their voices especially to the performance of the alto part in choral music. These efforts were highly successful: they resulted in the awakening of a

very general interest in musical instruction, and in preparing the way for the formation of the Boston Academy of Music, and for the introduction of music into schools, as an educational study.

Dr. Mason had already established a reputation as a successful teacher, both of vocal and instrumental music, in which he had now been engaged for sixteen or eighteen years, when an event occurred, which not only changed his whole manner of teaching, but which led him to a much wider and more comprehensive view of the subject of musical instruction, than he had before entertained, and to juster conceptions of the whole theory of education, as resting on a rational and philosophical basis. We refer to the fact that he had now become acquainted, for the first time, with the principles of instruction, as developed by Pestalozzi, which, although at first with great reluctance, he at length thoroughly embraced, and has, for nearly thirty years, constantly and faithfully adhered to, and happily and successfully illustrated.

For this clearer light on the subject of education, Dr. Mason was indebted to the enlightened zeal, energy, and perseverance, in all educational improvements, of the late William C. Woodbridge, so extensively known, not only as a geographer but as an educator, whose labors, in both capacities, mark one of the prominent eras of the history of education in the United States. Mr. Woodbridge, while in Germany and Switzerland, where he resided for several years, with the view of becoming acquainted with the best methods of instruction, although like Pestalozzi, he had given little personal attention to the subject of music, became, from his own observation of its excellent influence on the pupils of Pestalozzian schools in general, and especially in the institution of Fellenberg, at Hofwyl, thoroughly convinced of its importance as a school exercise and an educational influence. He accordingly procured all the information in his power respecting it, and obtained the most approved text-books of school or class voice-exercises and songs, as well as of elementary treatises on musical instruction. Among these were the admirable songs of Nägeli, and the treatise by M. T. Pfeiffer and H. G. Nägeli, published at Leipzig, 1810, entitled "*Gesangbildungslehre nach Pestalozzischen Grundsätzen.*" These books by Nägeli and others, which had been prepared with particular reference to the legitimate influence of song in moral culture and the training of the affections, Mr. Woodbridge not only placed in the hands of Dr. Mason, but was at the trouble, himself, to translate them, in part, and to furnish such explanations and directions as he had received personally from Pfeiffer, Nägeli, Krüsi, Fellenberg, Kübler, Gersbach, and others.

To those who know, from their own experience, how difficult it is

for one who has, for many years, been successful as a teacher, and has, therefore, great confidence in some method of his own, to substitute for it that of another, to those who have observed the slow progress which has been made in the true art and science of teaching, notwithstanding the greatly increased attention which has been given to the subject of education, for the last quarter of a century,—to those who know that, even at this day, the principles of Colburn's Arithmetic, which were derived from Pestalozzi, are still rejected by many teachers, it will not seem surprising that it was, at first, no easy thing to convince Dr. Mason that the new method was preferable to that of foregoing rules, signs, tables, and definitions, to be committed to memory from a printed tabular or book form, to which he had been so long accustomed, and in the use of which he had attained to such success. But the efforts of Mr. Woodbridge were untiring: they were persevered in with such a constancy, zeal, and good humor, that, at last, Dr. Mason consented to a proposed experiment of teaching a class, after the Pestalozzian manner, provided one could be found for the special purpose. Mr. Woodbridge and others who had become interested in the subject, succeeded in the formation of a large class, of about two hundred ladies and gentlemen, with the express view of bringing the new method to the test of experience. The lessons were carefully prepared, at first, with the assistance of Mr. Woodbridge, and were given by Dr. Mason, with a success vastly greater than had ever before attended any of his efforts. He was fully convinced of the practicability and the fitness of the new method, as a mode of instruction appealing to reason and common sense, not less than to theory and truth, on educational principles. The same mode of teaching he soon began to apply to juvenile classes, and with success corresponding to that in the adult class referred to above.

In 1830, a lecture was given by Mr. Woodbridge, before the American Institute of Instruction, on "Vocal Music as a branch of Education," in the State House in Boston. Illustrations were given by a class of Dr. Mason's pupils. A wider and more important field of instruction was now opened, than had before been contemplated. Dr. Mason's juvenile classes,—which had already been taught gratuitously, for several years; he furnishing not only the tuition but also the room, fuel, and all needful school apparatus,—now rapidly increased in numbers, to such extent that thousands of children, of both sexes, received more or less instruction in singing, and in the knowledge of music. These classes were taught on the afternoons of Wednesdays and Saturdays, so as to enable the children of the public schools to attend: two or three classes, sometimes numbering

altogether, from one to five hundred children, were accustomed to meet at successive hours on the same day. The first juvenile concerts followed. These were given by choirs of children, so numerous as to fill the galleries of the Bowdoin street church.

Dr. Mason was now joined in these labors by Mr. George James Webb; and here it is proper to observe that the whole amount received, as the proceeds of all the juvenile concerts, was given to some charity; neither of the instructors receiving any pecuniary compensation whatever for their labors, until after the formation of the Boston Academy of Music, which, in part, at least grew out of these efforts.

The subject of music in schools was now taken up in good earnest, by some of the best educators and teachers of Boston; and instruction in singing was introduced, almost simultaneously, into the Mount Vernon School, (female,) under the Rev. Jacob Abbott, the Chauncy-Hall School, (male,) under Mr. G. F. Thayer, and the Monitorial School, (female,) under Mr. George W. Fowle.

It would not be consistent with our present purpose to follow the progress and wider diffusion of musical instruction and its genial influences, either on the character of education, or on the improving and extending taste for music in the community at large. We can merely glance at the auspicious establishment of the Boston Academy of Music, and the subsequent introduction of music, as a regular branch of instruction, in the public schools of Boston, whence it rapidly extended throughout New England and the Union.

Under the patronage of the Boston Academy of Music, and under the immediate direction of Messrs. Mason and Webb, various measures were taken for the improvement of musical education, by the formation of permanent classes, the association of church choirs, the establishment of lectures, the periodical appointment of concerts, schools for instrumental music, and the yet more extensive introduction of vocal music in public and private schools.

We must not omit, in this connection, to state the fact that one of the very first regular Teachers' Institutes ever held in our country, was that held in Boston, in August, 1834, by the Academy, for "instruction in the methods of teaching music." In this class, which was annually continued up to the year 1852, the Pestalozzian method of teaching vocal music in classes, was regularly explained and illustrated. Similar classes for teachers were soon established in various places; and it is, perhaps, owing to this fact that Pestalozzian teaching came to be very extensively, though erroneously, regarded as merely a method of *musical* instruction, rather than one of universal application to all branches of study, in all stages of their progress.

In 1837, Dr. Mason visited Europe, for the principal purpose of making himself personally acquainted with the best systems of teaching music in actual use abroad. In Paris, he found Wilhelm's method in use, and popular as taught in the schools of its author; but this being based entirely on those principles which Dr. Mason had, some years before, reluctantly been compelled by his convictions to abandon, and being merely a carefully prepared course of *mechanical* training, could lay no claim to his attention. In Wurtemberg and the northern parts of Switzerland, he became acquainted with Kübler, Gersbach, Fellenberg, and others;—Pestalozzi and Nägeli were no more. The three first named pursued, to greater or less extent, the inductive method; and, from the observation of their modes of teaching, and from personal communication with them, he became more familiar with its practical application to music and to school studies generally.

On his return from Europe, Dr. Mason had ample opportunities for carrying out the principles of inductive teaching, in extensive application to the instruction of his numerous classes; and his methods may not unjustly be mentioned as more rigorously exact and philosophically just than even those adopted in the schools abroad in which they were originally introduced. Pestalozzi himself, though fully convinced of the value of music, as a means of intellectual and moral training, was as little systematic in the practical and executive part of teaching as in other branches, and attempted nothing beyond a rudimental outline, suggestive rather than methodical, and designed to be carried out by others possessed of a more patient spirit of application, or of greater tact and skill. The suggestive views of Pestalozzi, Dr. Mason has carried further, perhaps, than any other teacher has ever done; and, through his exertions, the soundness and practicability of these views, not less than their theoretic truth, have been brought to the thorough test of daily experience in his teaching, which was gratuitously conducted, as an experiment, for one entire year, in one of the public schools of Boston, previous to its general introduction, under his personal direction, in these schools, and in the classes of the Academy. Another sphere of extensive experience of the benefits resulting from Dr. Mason's application of Pestalozzian principles to the processes of instruction, has been that of the Massachusetts Teachers' Institutes, which he has attended, as lecturer and instructor in music, from the commencement, under the direction of the Hon. Horace Mann, the first Secretary of the Massachusetts Board of Education, through the secretaryship, also, of the Rev. Dr. Sears, and, thus far, that of the present Secretary, the Hon. George S.

Boutwell. In this form of teaching, Dr. Mason peculiarly excels. His long continued experience as a practical teacher, his rare tact in developing the vital principles of instruction in the simplest and happiest manner, his endless variety of illustrations, his indefatigable perseverance in tracking and exposing errors in thought or in theory, his genial and humane humor, his playful sallies of wit, his kindly sympathy with youth and childhood, his gentle yet impressive monitory hints, and occasional grave reflections, give him an indescribable power over his audience; while the perfect simplicity and strictly elementary character of his instructions evince the depths to which he has penetrated, in tracing the profoundest philosophy of teaching. Nor is his success limited to the single department which, in the sessions of the institutes, falls nominally under his special care. His wide and comprehensive views embrace the whole field of education, and all its prominent subjects. The remark was justly made by the Hon. Horace Mann, that it was well worth any young teacher's while to walk ten miles to hear a lecture of Dr. Mason; for in it he would hear a most instructive exposition of the true principles of all teaching, as well as that of instruction in music.

In 1855, the University of New York recognized the value of Dr. Mason's labors in his more immediate professional sphere, by conferring on him the honorary degree of Doctor in Music;—the first instance of such a degree being conferred by an American university; and Dr. Mason being the first American who ever received such an honor from any quarter.

Dr. Mason owes his high reputation at home and abroad to the fact that he has pursued his long and arduous career as a teacher, not merely with an unparalled success, which has justly raised him to eminence, but on broad and generous principles elevated far above all barely technical or mechanical skill, displayed in mere flexibility of voice or dexterity of finger. It is as an enlightened educator, who distinctly perceives and eloquently pleads for the value and the power of music, as an influence on human culture, that he stands prominently before his country as one of its noble benefactors. And most assuredly he has already reaped a large share of that reward of grateful feeling which future generations will yet more fully express, as the children in our common schools, and the worshipers in our churches, continue to repeat the strains of chaste melody and skillful harmony for which our whole community stands so deeply indebted to the labors of his daily life.

The services which he has rendered to the cause of education, in his instructive methods of developing the elements of all

culture, as well as of music, are deeply appreciated by the multitude of young teachers who have enjoyed the privilege of listening to his skillful expositions of theory and practice, in all their relations to the daily duties of the teacher's life. The method which he has pursued for the last twenty-five years has been of signal service in drawing out, to a degree unknown before, the proper distinction existing in the generic vocal principle of speech and song, and the relation which the two-fold form sustains to itself, in its component elements. He has been peculiarly successful in inculcating the beauty of a finished articulation in song, and that of true expression in the tones of emotion. While occupied with the claims of *sound*, however, he has always recognized those of *number* and *form*, as correlatives in the processes of culture. He has never pleaded the cause of music exclusively, but always set it forth in its happy influence on all other departments of mental discipline and development.

Dr. Mason's influence, through his published works, not less than his personal instructions, has been in the highest degree conducive to the cultivation of *purity of taste*, as an important element not only in the æsthetic relations of musical art, but in all those of high, moral culture and true elevation of character. The judgment and care with which, in this relation, his selections of school songs have been compiled, are beyond praise. He has furnished, in those unpretending little volumes, a treasury of the best simple melodies of many lands, as these have been presented by eminent masters who have condescended, (or rather risen,) to meet the heart of childhood in its thirst for song; and these beautiful strains of music he has accompanied with words which speak of nature, of life, and of God, in the purest forms of sentiment. To feel the full value of his labors in this department, we have but to glance, for a moment, at the low and degrading character of too many of our popular, and even our school songs. The noble office and mission of music, as an intended refiner and purifier of the heart, Dr. Mason has never overlooked. Well has he said,

"We fear that it is too often the case that music in school is regarded not as having any thing to do with study, but as a mere recreation or amusement. Valuable as it may be, even in this view, we feel certain that, when introduced into schools, music should be made a study, not only in itself considered, but as a correlative to all school pursuits, and occupations. Unless the pupils are made more cheerful, happy, kind, and studious, by the music lesson, it is not properly given; for these are some of the results which music was obviously designed to secure."

LIST OF PUBLICATIONS BY LOWELL MASON.

Juvenile, or School Books.

JUVENILE PSALMIST, Boston, 1829.
JUVENILE LYRE, [the first book of School Songs published in this country,] Boston, 1830.
MANUAL OF INSTRUCTION IN THE ELEMENTS OF VOCAL MUSIC, Boston, 1834.
JUVENILE SINGING SCHOOL, Boston, 1835.
SABBATH SCHOOL SONGS, Boston, 1836.
SABBATH SCHOOL HARP, Boston, 1837.
JUVENILE SONGSTER, London, 1838.
JUVENILE MUSIC FOR SABBATH SCHOOLS, Boston, 1839.
BOSTON SCHOOL SONG BOOK, Boston, 1840.
LITTLE SONGS FOR LITTLE SINGERS, Boston, 1840.
AMERICAN SABBATH SCHOOL SINGING BOOK, Philadelphia, 1843.
SONG BOOK OF THE SCHOOL ROOM, Boston, 1845.
PRIMARY SCHOOL SONG BOOK, Boston, 1846.
THE NORMAL SINGER, [four-part Songs,] New York, 1856.

Glee Books, &c.

*THE MUSICAL LIBRARY, &c., Boston, 1835.
*THE BOSTON GLEE BOOK, Boston, 1838.
*THE ODEON, Boston, 1839.
THE GENTLEMEN'S GLEE BOOK, Boston, 1842.
*THE VOCALIST, Boston, 1844.
*THE GLEE HIVE, Boston, 1851.

Sacred and Church Music Books.

THE BOSTON HANDEL AND HAYDN COLLECTION OF CHURCH MUSIC, Boston, 1822.
THE CHOIR, OR UNION COLLECTION, Boston, 1833.
THE BOSTON ACADEMY COLLECTION, Boston, 1836.
LYRA SACRA, Boston, 1837.
OCCASIONAL PSALMODY, Boston, 1837.
SONGS OF ASAPH, Boston, 1838.
BOSTON ANTHEM BOOK, Boston, 1839.
THE SERAPH, Boston, 1838.
THE MODERN PSALMIST, Boston, 1839.
THE CARMINA SACRA, Boston, 1841.
THE BOSTON ACADEMY COLLECTION OF CHORUSES, Boston, 1844.
*THE PSALTERY, Boston, 1845.
THE NATIONAL PSALMIST, Boston, 1848.
*CANTICA LAUDIS, Boston, 1850.
*THE BOSTON CHORUS BOOK, Boston, 1851.
THE NEW CARMINA SACRA, Boston, 1852.
THE HOME BOOK OF PSALMODY, London, 1852.
THE HALLELUJAH, New York, 1854.

Many smaller works and single pieces are not included in the above.

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* Published in connection with Mr. George James Webb.

VII. HISTORY OF THE SCIENCE AND ART OF EDUCATION.

BY KARL VON RAUMER.

In no department of literature is the English Language, as compared with the German or French, so deficient, as in the History, Biography, Science and Art of Education. To supply this deficiency is one of the cardinal objects of this Journal, and in addition to independent treatises on the history and condition of systems and institutions of education in different countries, we propose to give a living interest to the discussion of principles and methods of instruction which have prevailed at different times in the same country, by a series of biographies of eminent teachers, educators, and promoters of education. In these sketches we shall draw largely on the "*History of Pedagogics*"* by Karl von Raumer, a standard work in the educational literature of Germany.

Karl von Raumer, was born at Worlitz, in the duchy of Anhalt-Dessau, on the 9th of April, 1783. Until his fourteenth year, he was under private instruction at home; was then, with his brother, (Frederic, the present Minister of Public Instruction in Prussia,) placed at the Joachimsthal Gymnasium at Berlin; in 1801, went thence to the university of Göttingen to study law; in 1803, to Halle, to attend the lectures of Wolf and Steffens, and in 1805, to Freiberg, where he devoted himself to mineralogy and geology under Werner. After exploring the mountain chains in Germany and France, he went to Paris, in the autumn of 1808 to prosecute his geological studies, where a change in his plans of life occurred, which he thus describes in a chapter of his published lectures on education:

"At Paris my views and intentions in regard to the future occupation of my life underwent a great change, which was brought about by two different causes. For one thing, I had learnt by my own experience how little a single individual is able to accomplish for the science of mineralogy, even if he goes to work with the best will and the most toilsome industry; that it required, much more, the united, intelligent and persevering labors of many, in order to pass from a mere belief in the laws of mineralogy to an actual perception of their operation in mountain chains. I thus became convinced that we ought not to work for science as individuals, but that we should, after passing through our own apprenticeship, instruct others and train them for the pursuit of science. How much more useful is it, thought I, to produce *one* new workman than *one*

*Geschichte der Pädagogik vom Wiederaufblühen klassischer studien bis aus unsere zeit Stuttgart, 1847. 3 vols.

single new work, seeing that the former can execute many works, and even train other workmen. This conviction caused me to turn my attention to the question of education. But a second cause operated in a still higher degree to produce the same result. The sad time that had passed since 1806 had affected me with horror and dismay; it had made me wish to shun the society of my fellow-men, and had quite disposed me to give myself up to the most solitary researches among the mountains. This disposition was strengthened at Paris, in the midst of the haughty despisers of our German fatherland. But it was here, too, where hope first dawned within me, where a solitary light beamed toward me through the darkness of night. I read Pestalozzi, and what Fichte says, in his 'Addresses to the German Nation,' about Pestalozzi and education. The thought, that a new and better Germany must rise from the ruins of the old one, that youthful blossoms must spring from the mouldering soil, took strong hold of me. In this manner, there awoke within me a determination to visit Pestalozzi at Yverdun.

Fichte's Addresses had great influence on me. Surrounded by Frenchmen, the brave man pointed out to his Berlin hearers in what way they might cast off the French yoke, and renew and strengthen their nationality.

He promised deliverance especially through a national education of the Germans, which he indicated as the commencement of an entire reformation of the human race, by which the spirit should gain a complete ascendency over the flesh. To the question, to which of the existing institutions of the actual world he would annex the duty of carrying out the new education, Fichte answered, 'To the course of instruction which has been invented and brought forward by Henry Pestalozzi, and which is now being successfully carried out under his direction.'

He then gives an account of Pestalozzi, and compares him with Luther, especially in regard to his love for the poor and destitute. His immediate object, says Fichte, was to help these by means of education, but he had produced something higher than a scheme of popular education,—he had produced a plan of national education which should embrace all classes of society.

Further on he expresses himself in his peculiar manner on the subject of Pestalozzi's method, which he criticises. He takes exception to Pestalozzi's view of language, namely, 'as a means of raising mankind from dim perceptions to clear ideas,' and to the Book for Mothers. On the other hand, he strongly recommends the development of bodily skill and dexterity proposed by Pestalozzi, for this, among other reasons, that it would make the whole nation fit for military service, and thus remove the necessity for a standing army. To Pestalozzi, he attaches a high value to the skill necessary for gaining a livelihood, as a condition of an honorable political existence.

He especially insists that it is the duty of the State to charge itself with education. He spoke in the year 1808, in the capital of Prussia, which had been deeply humiliated by the unhappy war of the preceding years, and in the most hopeless period of Germany's history.

'Would that the state,' he said to a Prussian audience, among whom were several high officers of state, 'would look its present peculiar condition steadily in the face, and acknowledge to itself what that condition really is; would that it could clearly perceive that there remains for it no other sphere in which it can act and resolve as an independent State, except the education of the rising generation; that, unless it is absolutely determined to do nothing, this is now all it can do; but that the merit of doing this would be conceded to it undiminished and unenvied. That we are no longer able to offer an active resistance, was before presupposed as obvious, and as acknowledged by every one. How then can we defend our continued existence, obtained by submission, against the reproach of cowardice and an unworthy love of life? In no other way than by resolving not to live for ourselves, and by acting up to this resolution; by raising up a worthy posterity, and by preserving our own existence solely in order that we may accomplish this object. If we had not this first object of life, what else were there for us to do? Our constitutions will be made for us, the alliances which we are to form, and the direction in which our military resources shall be applied, will be indicated to us, a statute-book will be lent to us, even the administration of justice will sometimes be taken out of our hands; we shall be relieved of all these cares for the next years to come. Education

alone has not been thought of; if we are seeking for an occupation, let us seize this! We may expect that in this occupation we shall be left undisturbed. I hope, (perhaps I deceive myself, but as I have only this hope still to live for, I can not cease to hope,) that I convince some Germans, and that I shall bring them to see that it is education alone which can save us from all the evils by which we are oppressed. I count especially on this, as a favorable circumstance, that our need will have rendered us more disposed to attentive observation and serious reflection than we were in the day of our prosperity. Foreign lands have other consolations and other remedies; it is not to be expected that they would pay any attention, or give any credit to this idea, should it ever reach them; I will much rather hope that it will be a rich source of amusement to the readers of their journals, if they ever learn that any one promises himself so great things from education.'

It may easily be imagined how deep an impression such words made on me, as I read them in Paris, the imperial seat of tyranny, at a time when I was in a state of profound melancholy, caused by the ignominious slavery of my poor beloved country. There also I was absorbed in the perusal of Pestalozzi's work, 'How Gertrude teaches her children.' The passages of deep pathos in the book took powerful hold of my mind, the new and great ideas excited strong hopes in me; at that time I was carried away on the wings of those hopes over Pestalozzi's errors and failures, and I had not the experience which would have enabled me to detect these easily, and to examine them critically.

About the same time I read the 'Report to the Parents on the state of the Pestalozzian Institution;' it removed every doubt in my mind as to the possibility of seeing my boldest hopes realized. Hereupon, I immediately resolved to go to Yverdun, which appeared to me a green oasis, full of fresh and living springs, in the midst of the great desert of my native land, on which rested the curse of Napoleon."

At an age when most men, of his acknowledged ability and scholarship, are only thinking of securing a civil employment, which shall bring both riches and honor, Von Raumer hastened to Pestalozzi at Yverdun, where he devoted himself, for nearly two years, to a study of the principles and methods of elementary instruction, as illustrated by the great Swiss educator.

Returning from Switzerland, in May, 1810, Von Raumer accepted an appointment of regular professor at Halle, with a handsome salary; but, not finding the pleasure he anticipated in his professorial lectures, he soon after gave up the post, and proceeded to establish a private school at Nuremberg, where he strove to realize his own ideal of an educational institution. In this enterprise he was not so immediately successful as he hoped to be. In 1822 he married a daughter of Kappellmeister Reichardt, and, by the advice of his friends, he returned to academic life by accepting the appointment of professor of natural history, at Erlangen. In addition to his regular duties, he found time to prepare and deliver occasional lectures on the "History of Pedagogy from the revival of classical learning to our own time." These lectures were subsequently published in three parts—the first of which was issued in 1843. Of the origin and plan of the work the author thus speaks in the preface to the complete edition in 1846.

"This work has grown out of a series of lectures, upon the history of education,

which I delivered, in 1822, at Halle, and several years later, from 1838 to 1842, at Erlangen.

The reader may inquire, how it was that my attention was directed to this subject? If he should, it will perhaps be sufficient to say in reply, that during the thirty-one years of my professorship, I have not merely interested myself in the *science* to which my time was devoted, but also in its corresponding *art*, and this the more, because much of the instruction which I gave was additional to my regular lectures, and imparted in the way of dialogue. This method stimulated my own thoughts too, to that degree, that I was induced as early as the year 1819 to publish many didactical essays, and subsequently, a manual for instruction in Natural History. But were I called upon for a more particular explanation, it would be necessary for me to relate the many experiences of my somewhat eventful life, both from my passive years of training and instruction, and from my active years of educating and instructing others. This, however, is a theme, to which I can not do justice within the brief compass of a preface; if hereafter an opportunity shall offer, I may treat it in another place.

And yet after all, the book itself must bear testimony to the fitness of the author for his task. Of what avail is it to me, to say that I have been taught by Meierotto, Buttman, Frederick Augustus, Wolf, Steffens, Werner, Pestalozzi, and other distinguished men? When I have said all this, have I done any more than to show that the author of this book has had the very best opportunity to learn what is just and true?

My book begins with the revival of classical learning. And Germany I have had preëminently in view. Why, by way of introduction, I have given a brief history of the growth of learning in Italy from Dante to the age of Leo X., the reader will ascertain from the book itself. He will be convinced, if not at the outset, yet as he reads further, that this introduction is absolutely necessary to a correct understanding of German didactics.

A history of didactics must present the various standards of mental culture, which a nation proposes to itself during its successive eras of intellectual development, and then the modes of instruction which are adopted in each era, in order to realize its peculiar standard in the rising generation. In distinguished men that standard of culture manifests itself to us in person, so to speak, and hence they exert a controlling influence upon didactics, though they may not themselves be teachers. 'A lofty example stirs up a spirit of emulation, and discloses deeper principles to guide the judgment.'

But their action upon the intellectual culture of their countrymen has a redoubled power, when at the same time they labor directly at the work of teaching, as both Luther and Melancthon did for years. This consideration has induced me to select my characters for this history among distinguished teachers, those who were held in the highest respect by their contemporaries, and whose example was a pattern for multitudes. Such an one was John Sturm at Strasburg, a rector, who with steady gaze pursued a definite educational aim, organizing his gymnasium with the utmost skill and discernment, and carrying out what he had conceived to be the true method, with the most scrupulous care. An accurate sketch of the educational efficiency of this pattern rector, based upon original authorities, in my opinion conveys far more insight and instruction than I could hope to afford, were I to entangle myself amid fragmentary sketches of numberless ordinary schools, framed upon Sturm's plan.

Thus much in explanation of the fact that this history has taken the form of a series of biographies. And in view of the surprising differences among the characters treated of, it can not appear singular, if my sketches should be widely different in their form.

There was one thought, which I will own occasioned me abundant perplexity during my labors. If I was about to describe a man, who, I had reason to suppose, was more or less unknown to most of my readers, I went about the task with a light heart, and depicted his life and labors in their full proportions, communicating every thing which could, by any possibility, render his image clearer and more lifelike to the reader. But how different the case, when the educational efficiency of Luther is to be set forth. 'My readers,' I say to myself, 'have long been acquainted with the man, and they will not thank me for the information that he was born at Eisleben, on the 10th of November, 1483; as if they had not known this from their youth up.' I am, therefore, compelled

to omit all such particulars, and to confine myself exclusively to his educational efficiency. And yet this did not stand alone; but was for the most part united, with its entire influence, both to the church and the state. As with Luther, so also was it with Melancthon and others. Considerate readers will, hence, pardon me, I hope, when, in cases of this kind, they are not fully satisfied with my sketches.

In another respect, too, I ought perhaps to solicit pardon, though I am reluctant to do so. We demand of historians an objective portraiture, especially such as shall reveal none of the personal sympathies or antipathies of the writer. Now it is proper to insist upon that truth and justice which will recognize the good qualities of an enemy, and acknowledge the faults of a friend. But free from likes and dislikes I neither am, nor do I desire to be, but, according to the dictates of my conscience and the best of my knowledge, I will signify my abhorrence of evil and my delight in good, nor will I ever put bitter for sweet or sweet for bitter. It may be, too, that a strict objectivity requires the historian never to come forward himself upon the stage, and never to express his own opinion in respect to the facts which he is called upon to chronicle. Herein he is not allowed so much freedom of action as the dramatist, who, by means either of the prologue and epilogue, or of the chorus between each of the acts, comes forward and converses with the public upon the merits of his play. Such an objectivity, likewise, I can not boast myself of; for I record my own sentiments freely where I deem it necessary. And surely will not the objectivity of history gain more by an unrestricted personal interview with the historian, at proper intervals, than by compelling him to a perpetual masquerade behind the facts and the narrative? Certainly it will, for in that case the reader discovers the character of the writer in his opinions, and knows what he himself is to expect from the narration. He likewise observes with the more readiness, where the writer, though conscientiously aiming at truth and impartiality, nevertheless betrays symptoms of human infirmity and party zeal. From a church historian, for instance, who should express his puritanical views without reserve, no intelligent reader would expect an impartial estimate of the middle ages.

Another motive also urges me to a free expression of my opinions, and that is, in order thereby to allure my readers to that close familiarity with many important educational subjects which the bare recital of facts seldom creates. If, in this history, the ideal and the methods of such different teachers are depicted, these diverse views can not but have the effect, especially those practically engaged in training the young, to induce a comparison of their own aims and procedure therewith. Sentiments that harmonize with our own give us joy, and inspire us with the pleasant consciousness that our course is the right one; differing or opposing opinions lead us to scrutinize our own course, even as were it another's; and from such scrutiny there results either perseverance based upon deeper conviction, or a change of course. I am happy to acknowledge, that this practical aim has been my chief motive in undertaking the present work, and has been uppermost in my thoughts during its prosecution.

As far as possible, I have depended on contemporaneous sources, and in part from exceedingly rare works, and such, as, for aught that I know to the contrary, in the present age, have fallen into almost total oblivion. And, for this reason, I was the more influenced to render a service to the reader, by bringing widely to his view the men and the manners of earlier centuries, through the medium of contemporaneous and characteristic quotations."

We give on the next page the Table of Contents of the three volumes of Raumer's great work, from which we shall, from time to time, transfer chapters to our pages, in such order as will give variety to the articles of the Journal.

KARL VON RAUMER, is also the author of the following works:

SCHOOL INSTRUCTION IN NATURAL SCIENCE. (*Ueber der Unterricht in die Naturkunde auf Schulen.*) Berlin: 1824.

DESCRIPTION OF THE EARTH'S SURFACE; AN INTRODUCTION TO GEOGRAPHY. (*Beschreibung der Erdoberfläche; eine Vorschule der Erdkunde.*) 3rd improved ed. Leipzig: 1838.

PALESTINE. (*Palästina.*) 2nd enlarged ed. Leipzig: 1838.

CONTRIBUTIONS TO BIBLICAL GEOGRAPHY. (*Beitrage zu Biblische Geographie.*) This is an addition to the *Palästina.*

GESCHICHTE DER PADAGOGIK vom wiederaufblühen klassischer studien bis unsere zeit. [*History of Pedagogics, or of the Science and Art of Education, from the revival of classical studies down to our time.*] By Karl von Raumer. 3 vols. Stuttgard, 2d edition, 1847.

VOLUME I.

PREFACE.

1. Middle Ages.

2. Italy, from birth of Dante to death of Petrarca and Boccaccio. 1. Dante. 2. Boccaccio. 3. Petrarca. Review of the period.

3. Development of classical studies in Italy, from death of Petrarca and Boccaccio until Leo X. 1. John of Ravenna and Emanuel Chrysoloras. 2. The educators, Guarino and Vittorino de Feltre. 3. Collection of MSS. Cosmo de Medici. Nicholas V. First printing. 4. Platonic Academy. Greek philologists. 5. Italians. Philadelphus. Poggius. Laurentius. 6. Lorenzo de Medici. Ficinus. Argyropulus. Landinus. Politianus. Picus de Mirandola.

4. Leo X. and his time; its lights and shadows.

5. Retrospect of Italy. Transition to Germany.

6. *Germans and Dutch*, from Gerhardus Magnus to Luther, 1340–1483. 1. The Hieronymians. 2. John Wessel. 3. Rudolf Agricola. 4. Alexander Flegius. 5, 6. Rudolf von Lange and Herman von den Busch 7. Erasmus. 8. School at Schlettstadt. Ludwig Dringenberg. Wimpheling. Crato. Lapidus. Platter. 9. John Reuchlin. 10. Retrospect.

Reformation. Jesuits. Realism.

From Luther to the death of Bacon, 1483–1626. 1. Luther. 2. Melancthon. 3. Valentin Friedland. Trotzendorf. 4. Michael Neander. 5. John Sturm. 6. Wurtemberg. 7. Saxony. 8. Jesuits. 9. Universities. 10. Verbal Realism. 11. Francis Bacon. 12. Montaigne.

Appendix.—I. Thomas Platter. II. Melancthon's Latin grammar. III. John Sturm.

VOLUME II.

New ideas and methods of education. Struggle, mutual influence, and gradual connection and exchange between the old and the new.

From Bacon's death to that of Pestalozzi. 1. The Renovators. 2. Wolfgang Ratich. 3. The Thirty Years' War. 4. Comenius. 5. The Century after the Thirty Years' War. 6. Locke. 7. A. H. Franke. 8. Real Schools. 9. Reformatory Philologists. J. M. Gesner. J. A. Ernesti. 10. J. J. Rousseau. 11. Philanthropists. 12. Hamann. 13. Herder. 14. F. A. Wolf. 15. Pestalozzi.

Appendix.—I. Wolfgang Ratich and his literature. II. Pedagogical works of Comenius. III. Interior of the Philanthropinum. IV. Pestalozzi and his literature. V. Pestalozzi's Evening Hour of a Hermit. VI. Pestalozzi on Niederer and Schmid. VII. Strangers who remained some time at Pestalozzi's institution. VIII. Rousseau and Pestalozzi.

VOLUME III.

Early childhood. Schools for small children. School and home. Educational institutions. Tutors in families.

Instruction. 1. *Religion.* 2 *Latin.* Preface.

I. History of Latin in Christian times. Speaking Latin. Writing Latin.

II. Methods of reading Latin. 1. These methods changed within the last three centuries. 2. Adversaries of the old grammatical method. 3. New methods. A. Learning Latin like the mother tongue. B. Latin and real instruction in connection. Comenius. C. Combination of A and B. D. Ratich and similar teachers. a. Ratich. b. Locke. c. Hamilton. d. Jacotot. e. Ruthardt. f. Meierotto. g. Jacobs. Concluding remarks.

Aphorisms on the teaching of *history.*

Geography.

Natural history and philosophy. Preface. 1. Difficulties. 2. Objections against this instruction in gymnasia answered. 3. Grades of natural knowledge. 4. Beginnings. 5. Science and art. 6. Mathematical instruction and elementary instruction in the knowledge of nature. 7. Instruction in mineralogy. 8. Characteristics of scholars. 9. Instruction in botany. 10. Unavoidable inconsistency. 11. "Mysteriously clear," (*Goethe.*) 12. Law and liberty. Concluding remarks.

Geometry.

Arithmetic.

Physical training. 1. Hygiene. 2. Hardening the body to toil and want. 3. Gymnastics. 4. Cultivation of the senses. Concluding observations.

Appendix.—I. Ruthardt's new *Loci Memoriales.* II. Teachers of mineralogy. III. Use of counters in the elementary instruction in arithmetic. IV. Explanation of the common abbreviated counting with cyphers.

VIII. THE SCHOOLMASTER,

OR A PLAIN AND PERFECT WAY OF TEACHING CHILDREN TO UNDERSTAND, WRITE AND SPEAK THE LATIN TONGUE.*

BY ROGER ASCHAM.

Written in 1563-4, and first printed in 1571.

PREFACE TO THE READER.

WHEN the great plague was at London, the year 1563, the Queen's Majesty, Queen Elizabeth, lay at her Castle of Windsor; where, upon the tenth day of December, it fortuned, that in Sir William Cecil's chamber, her Highness's principal Secretary, there dined together these personages, M. Secretary himself,[1] Sir William Peter,[2] Sir J. Mason,[3] D. Wotton,[4] Sir Richard Sackville,[5] Treasurer of the Exchequer, Sir Walter Mildmay,[6] Chancellor of Exchequer, M. Haddon,[7] Master of Requests, M. John Astely,[8] Master of the Jewel House, M. Bernard Hampton,[9] M. Nicasius,[10] and I.[11] Of which number, the most part were of her Majesty's most honorable Privy Council, and the rest serving her in very good place. I was glad then, and do rejoice yet to remember, that my chance was so happy to be there that day, in the company of so many wise and good men together, as hardly then could have been picked out again, out of all England beside.

M. Secretary hath this accustomed manner; though his head be never so full of most weighty affairs of the realm, yet at dinner time he doth seem to lay them always aside; and findeth ever fit occasion to talk pleasantly of other matters, but most gladly of some matter of learning, wherein he will courteously hear the mind of the meanest at his table.

Not long after our sitting down, "I have strange news brought me, saith M. Secretary, this morning, that divers scholars of Eaton run

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* The following is the original title of the work, as given by UPTON.

THE
SCHOLE MASTER;
Or plaine and perfite Way of teaching Children, to understand, writ, and speake, the LATIN TONGUE, *but specially purposed for the private bringing up of Youth in Jentlemen and Noblemens Houses, and commodious also for all such as have forgot the* LATIN TONGUE, *and would, by themselves, without a Scholemaster, in short Tyme, and with small Paines, recover a sufficient Habilitie, to understand, write, and speake* LATIN.
By ROGER ASCHAM,
Anno 1571.
AT LONDON,
Printed by JOHN DAYE, dwelling over ALDERSGATE.
Cum Gratia & Privilegio Regiæ Majestatis, per Decennium.

1. 2, &c. The Numerals refer to Annotations on pages 161—166.

away from the school for fear of a beating."[12] Whereupon M. Secretary took occasion to wish, that some more discretion were in many schoolmasters, in using correction, than commonly there is; who many times punish rather the weakness of nature, than the fault of the scholar; whereby many scholars, that might else prove well, be driven to hate learning before they know what learning meaneth; and so are made willing to forsake their book, and be glad to be put to any other kind of living.

M. Peter, as one somewhat severe of nature, said plainly, that the rod only was the sword, that must keep the school in obedience, and the scholar in good order. Mr. Wotton, a man mild of nature, with soft voice and few words, inclined to M. Secretary's judgment, and said, "In mine opinion the school-house should be in deed, as it is called by name, the house of play and pleasure, and not of fear and bondage; and as I do remember, so saith* Socrates in one place of Plato. And therefore if a rod carry the fear of a sword, it is no marvel if those that be fearful of nature, choose rather to forsake the play, than to stand always within the fear of a sword in a fond (*foolish*) man's handling."

M. Mason, after his manner, was very merry with both parties, pleasantly playing both with the shrewd touches of many curst† boys, and with the small discretion of many lewd† schoolmasters. M. Haddon was fully of M. Peter's opinion, and said, that the best schoolmaster of our time was the‡ greatest beater, and named the person. "Though, quoth I, it was his good fortune, to send from his school into the University§ one of the best scholars indeed of all our time, yet wise men do think, that that came to pass, rather by the great towardness of the scholar, than by the great beating of the master; and whether this be true or no, you yourself are best witness." I said somewhat further in the matter, how, and why young children were sooner allured by love than driven by beating, to attain good learning; wherein I was the bolder to say my mind, because M. Secretary courteously provoked me thereunto; or else in such a company

* The passage, to which the Dean of *Canterbury* refers, is in *Plato's* 7th Book of *Repub.* Chap. 16, and is afterward cited by Mr. *Ascham*. Τὰ μὲν τοίνυν λογισμῶν τε καὶ γεωμετριῶν, καὶ πάσης τῆς προπαιδείας, ἣν τῆς Διαλεκτικῆς δεῖ προπαιδευθῆναι, παιχὶν δεῖ χρὴ προβάλλειν ἐχ ὡς ἐπάναγκες μαθεῖν τὸ σχῆμα τῆς διδαχῆς ποιεμένους. Τί δὴ; "Οτι (ἦνδ' ἐγὼ) δοῦλον μάθημα μετὰ ἐλλείας τον ἐλεύθερον χρὴ μανθάνειν. Οἱ μὲν γὰρ τῶ σώματος πόνοι, βία πονέμενοι, χεῖρον οὐδὲν τῳ σώμα ἀπεργάζονται, Ψυχῇ δὲ βιαιον οὐδὲν ἔμμονον μάθημα Ἀληθῆ, ἔφη. Μὴ τοίνυν βιᾳ (εἶπον) ὦ ἄριστε, τὸς παῖδας ἐν τοῖς μαθήμασιν, ἀλλὰ παίζοντας τρέφε, ἵνα καὶ μᾶλλον διὸς τ' ᾖς καθορᾶν ἐφ' ὅ ἕκαστος πέφυκεν. (17.)

† Curst, *mischievous*; lewd, *savage*.

‡ This was *Nicholas Udel*, Master of *Eaton* School, whom *Bale* stiles, *Elegantissimus omnium bonarum literarum Magister, et earum felicissimus interpres*. His severity his own scholar, Mr. *Tusser*, has sufficiently proclaim'd.

§ This was Mr. *Haddon*, sometime Fellow of King's College in *Cambridge*.

and surely in his presence, my wont is to be more willing to use mine ears, than to occupy my tongue.

Sir Walter Mildmay, M. Astley, and the rest, said very little; only Sir Richard Sackville said nothing at all. After dinner, I went up to read with the Queen's Majesty. We read then together in the Greek tongue, as I well remember, that noble oration of Demosthenes against Æschines, for his false dealing in his embassage to King Philip of Macadonie. Sir Richard Sackville came up soon after, and finding me in her Majesties privy chamber, he took me by the hand, and carrying me to a window, said:

"M. Ascham, I would not for a good deal of money have been this day absent from dinner; where, though I said nothing, yet I gave as good ear, and do consider as well the talk that passed, as any one did there. M. Secretary said very wisely, and most truly, that many young wits be driven to hate learning, before they know what learning is. I can be good witness to this myself; for a fond (*foolish*) schoolmaster, before I was fully fourteen years old, drave me so with fear of beating from all love of learning, that now, when I know what difference it is, to have learning, and to have little, or none at all, I feel it my greatest grief, and find it my greatest hurt that ever came to me, that it was my so ill chance, to light upon so lewd a schoolmaster. But feeling it is but in vain to lament things past, and also wisdom to look to things to come, surely, God willing, if God lend me life, I will make this my mishap some occasion of good hap to little Robert Sackville my son's son. For whose bringing up, I would gladly, if it so please you, use specially your good advice. I hear say you have a son much of his age; we will deal thus together: point you out a schoolmaster, who by your order shall teach my son and yours,[19] and for all the rest, I will provide, yea though they three do cost me a couple of hundred pounds by year; and beside, you shall find me as fast a friend to you and yours, as perchance any you have." Which promise the worthy gentleman surely kept with me until his dying day.

We had then farther talk together of bringing up of children, of the nature of quick and hard wits, of the right choice of a good wit, of fear, and love in teaching children. We passed from children and came to young men, namely, gentlemen: we talked of their too much liberty to live as they lust; of their letting loose too soon to overmuch experience of ill, contrary to the good order of many good old Commonwealths of the Persians, and Greeks; of wit gathered, and good fortune gotten by some, only by experience without learning. And, lastly, he required of me very earnestly to shew what I thought of the common going of English men into Italy. "But, saith

he, because this place, and this time will not suffer so long talk, as these good matters require, therefore I pray you, at my request, and at your leisure, put in some order of writing the chief points of this our talk, concerning the right order of teaching, and honesty of living, for the good bringing up of children and young men; and surely, beside contenting me, you shall both please and profit very many others." I made some excuse by lack of ability, and weakness of body. "Well, saith he, I am not now to learn what you can do; our dear friend, good M. Goodricke,* whose judgment I could well believe, did once for all satisfy me fully therein. Again, I heard you say, not long ago, that you may thank Sir John Cheke[14] for all the learning you have; and I know very well myself, that you did teach the Queen. And therefore, seeing God did bless you, to make you the scholar of the best master, and also the schoolmaster of the best scholar, that ever were in our time, surely, you should please God, benefit your country, and honest your own name, if you would take the pains to impart to others what you learned of such a master, and how you taught such a scholar. And in uttering the stuff ye received of the one, in declaring the order ye took with the other, ye shall never lack neither matter, nor manner, what to write nor how to write, in this kind of argument."

I beginning some further excuse, suddenly was called to come to the Queen. The night following, I slept little; my head was so full of this our former talk, and I so mindful somewhat to satisfy the honest request of so dear a friend. I thought to prepare some little treatise for a New-years' gift that Christmas: but, as it chanceth to busy builders, so, in building this my poor school-house, (the rather because the form of it is somewhat new, and differing from others,) the work rose daily higher and wider, than I thought it would at the beginning.

And though it appear now, and be in very deed, but a small cottage, poor for the stuff, and rude for the workmanship; yet in going forward I found the site so good, as I was loth to give it over; but the making so costly, out-reaching my ability, as many times I wished that some one of those three, my dear friends, with full purses, Sir, Tho. Smith, M. Haddon, or M. Watson had had the doing of it. Yet nevertheless, I myself spending gladly that little, that I gat at home by good Sir John Cheke, and that I borrowed abroad of my friend Sturmius,[15] beside somewhat that was left me in reversion, by my old Masters Plato, Aristotle and Cicero, I have at last patched it up, as I could, and as you see. If the matter be mean, and meanly handled, I pray you bear both with me, and it; for never work went up in

* Bishop of Ely, and Lord Chancellor under Edward, VI.

worse weather, with more lets and stops, than this poor school-house of mine. Westminster-Hall can bear some witness, beside* much weakness of body, but more trouble of mind, by some such sores, as grieve me to touch them myself; and therefore I purpose not to open them to others. And in the midst of outward injuries, and inward cares, to increase them withal, good Sir Richard Sackville dieth, that worthy gentleman; "That earnest favorer and furtherer of God's true Religion; that faithful servitor to his prince and country; a lover of learning, and all learned men; wise in all doings; courteous to all persons, shewing spite to none, doing good to many; and as I well found, to me so fast a friend, as I never lost the like before." When he was gone, my heart was dead; there was not one that wore a black gown for him, who carried a heavier heart for him, than I; when he was gone, I cast this book away; I could not look upon it, but with weeping eyes, in remembring him, who was the only setter on, to do it; and would have been not only a glad commender of it, but also a sure and certain comfort to me, and mine for it.

Almost two years together, this book lay scattered and neglected, and had been quite given over of me, if the goodness of one had not given me some life and spirit again. God, the mover of goodness, prosper always him and his, as he hath many times comforted me and mine, and, I trust to God, shall comfort more and more. Of whom most justly I may say, and very oft, and always gladly I am wont to say, that sweet verse of Sophocles, spoken by Oedipus to worthy Theseus.

Ἔχω γὰρ ἃ χω διὰ σέ, κἀκ ἄλλον βροτῶν.†

This hope hath helped me to end this book; which if he allow, I shall think my labors well employed, and shall not much esteem the misliking of any others. And I trust he shall think the better of it because he shall find the best part thereof to come out of his school whom he of all men loved and liked best.

Yet some men, friendly enough of nature, but of small judgment in learning, do think I take too much pains, and spend too much time, in setting forth these childrens affairs. But those good men were never brought up in Socrates's school, who saith‡ plainly, "that no

* *Ingravescente jam ætate, a nocturnis et pomeridianis studiis abhorrebat: Antelucanis et matutinis temporibus legebat, commentabatur, studebat, scribebat. Erat corpore imbecillis, et valetudinarius, multis morbis fractus, continentibus febribus correptus, variis, agrotationibus afflictus; quæ paucis ante mortem annis eum in hecticam febrim conjecerunt.* This is taken out of Mr. *Grant's* excellent Oration on Mr. *Ascham*. (19)

† *For whatsoever I have, I have through thee, and through none other of living men.*

(‡) Plato in initio Theagis: Αλλὰ μὲν δὴ, ω Δημόδοκε, καὶ λέγεταί γε συμβολὴ ἱερὸν χρῆμα εἶναι. εἴπερ ἄν καὶ ἄλλη ἡτισοῦν ἐχειν ἱερὰ, καὶ ἀνὴρ ἂν εἴη, περὶ ἧς σὺ νῦν συμβολεύει. Οὐ γάρ ἐστι περὶ ὅτου θειοτέρου ἂν ἄνθρωπος βουλεύσαιτο, ἢ περὶ Παιδείας καὶ ἀνδρὸς, καὶ τῶν ἀνδρὶ δικαίων. This Passage is cited by the Author, tho' not so fully. (16.)

man goeth about a more godly purpose, than he that is mindful of the good bringing up both of his own and other men's children."

Therefore, I trust, good and wise men will think well of this my doing. And of other, that think otherwise, I will think myself, they are but men, to be pardoned for their folly, and pitied for their ignorance.

In writing this book, I have had earnest respect to three special points, truth of religion, honesty in living, right order in learning. In which three ways, I pray God, my poor children may diligently walk; for whose sake, as nature moved, and reason required, and necessity also somewhat compelled, I was the willinger to take these pains.

For, seeing at my death, I am not like to leave them any great store of living, therefore in my life time, I thought good to bequeath unto them, in this little book, as in my will and testament, the right way to good learning: which if they follow, with the fear of God, they shall very well come to sufficiency of living.

I wish also, with all my heart, that young Mr. Robert Sackville,[16] may take that fruit of this labor, that his worthy grandfather purposed he should have done: and if any other do take either profit or pleasure hereby, they have cause to thank Mr. Robert Sackville, for whom specially this my schoolmaster was provided.

And one thing I would have the reader consider in reading this book, that because no schoolmaster hath charge of any child, before he enter into his school; therefore I leaving all former care, of their good bringing up, to wise and good parents, as a matter not belonging to the schoolmaster, I do appoint this my schoolmaster then, and there to begin, where his office and charge beginneth. Which charge lasteth not long, but until the scholar be made able to go to the University, to proceed in logic, rhetoric, and other kinds of learning.

Yet if my schoolmaster, for love he beareth to his scholar, shall teach him somewhat for his furtherance, and better judgment in learning, that may serve him seven year after in the University, he doth his scholar no more wrong, nor deserveth no worse name thereby, than he doth in London, who selling silk, or cloth, unto his friend, doth give him better measure, than either his promise, or bargain was.

FAREWELL IN CHRIST.

ANNOTATIONS.

THE idea of the SCHOOLMASTER originated in the table-talk of a company "of wise and good men," who dined together in the chambers of Sir William Cecil, at Windsor Castle on the 10th of December, 1563;—a company which Ascham says, "could hardly then be picked out again out of all England besides."

(I.) SIR WILLIAM CECIL, for forty years Secretary of State under Queen Elizabeth, and raised to the peerage by the title of Baron of Burleigh, in 1571, was born at Bourn, in Lincolnshire, September 13, 1520,—educated at the grammar school of Grantham and Stamford, at St. John's College, Cambridge, and at Gray's Inn, London,—was married to a sister of Sir John Cheke, in 1541, and on her death in 1543, to a daughter of Sir Anthony Cook in 1545, and was largely concerned in the public affairs of his country and age. He was a hard student in early life, a thoughtful reader of books, as well as observer of men, wise and moderate in his political measures, and never unmindful of his family and social duties in his anxious labors for the state. Much light is thrown on the domestic habits of Lord Burleigh, in the "Diary of a Domestic"—or "*The Complete Statesman*," as it is entitled by the writer, who describes himself as having "lived with him during the last twenty-five years of his life."

"His kindness, as nature ever leads all men, was most expressed to his children; if he could get his table set round with his young little children, he was then in his kingdom; and it was an exceeding pleasure to hear what sport he would make with them, and how aptly and merrily he would talk with them,—with such pretty questions and witty allurements, as much delighted himself, the children, and the hearers. * * He had his own children, grand children, and great grand children, ordinarily at his table, sitting about him like olive branches. * * He was of spare and temperate diet, * * and above all things, what business soever was in his head, it was never percieved at his table, where he would be so merry, as one would imagine he had nothing else to do; directing his speech to all men according to their qualities and capacities, so as he raised mirth out of all men's speeches, augmenting it with his own, whereby he was never in want of company, so long as he was able to keep company. * * His recreation was chiefly in his books, wherewith if he had time, he was more delighted than others with play at cards. * Books were so pleasing to him, as when he got liberty from the queen to go unto his country house to take air, if he found but a book worth the opening, he would rather lose his riding than his reading. And yet riding in his garden and walks, upon his little mule, was his greatest disport. But, so soon as he came in, he fell to his reading again, or else to dispatching of business. * * * His favorite book was Cicero's Offices. His kindness of nature was seen in his declaration that he entertained malice toward no individual, and thanked God that he never retired to rest out of charity with any man."

While appreciating the advantages of the best education, and striving to secure them at any price for his own children, Lord Burleigh deemed "human learning, without the fear of God, of great hurt to all youth." With the most profound reverence for "divine and moral documents," his "Advices to his son, Robert Cecil," are characterized by the shrewdest worldly wisdom.

Son Robert,

The virtuous inclinations of thy matchless mother,* by whose tender and godly care thy infancy was governed, together with thy education under so zealous and excellent a tutor, puts me in rather assurance than hope that thou art not ignorant of that *summum bonum* which is only able to make thee happy as well in thy death as in thy life; I

* Lady Burleigh, was one of five daughters of Sir Anthony Cook, preceptor of Edward VI., all of whom were distinguished for their mental accomplishments, and for their exemplary demeanor as mothers of families. Her death, after sharing his fortunes for forty-three years, Lord Burleigh regarded as the great calamity of his life.

mean the true knowledge and worship of thy Creator and Redeemer; without which all other things are vain and miserable. So that thy youth being guided by so sufficient a teacher, I make no doubt that he will furnish thy life with divine and moral documents. Yet, that I may not cast off the care beseeming a parent toward his child, or that thou shouldest have cause to derive thy whole felicity and welfare rather from others than from whence thou receivedst thy breath and being, I think it fit and agreeable to the affection I bare thee, to help thee with such rules and advertisements for the squaring of thy life as are rather gained by experience than by much reading. To the end that, entering into this exorbitant age, thou mayest be the better prepared to shun those scandalous courses whereunto the world, and the lack of experience, may easily draw thee, and because I will not confound thy memory, I have reduced them into ten precepts; and, next unto Moses' Tables, if thou imprint them in thy mind, thou shalt reap the benefit, and I the content. And they are these following:—

I. When it shall please God to bring thee to man's estate, use great providence and circumspection in choosing thy wife; for from thence will spring all thy future good or evil. And it is an action of thy life like unto a stratagem of war, wherein a man can err but once. If thy estate be good, match near home and at leisure; if weak, far off and quickly. Inquire diligently of her disposition, and how her parents have been inclined in their youth. Let her not be poor, how generous* soever; for a man can buy nothing in the market with gentility. Nor choose a base and uncomely creature altogether for wealth; for it will cause contempt in others and loathing in thee. Neither make a choice of a dwarf or a fool; for by the one thou shalt beget a race of pigmies; the other will be thy continual disgrace; and it will yirke† thee to hear her talk. For thou shalt find it to thy great grief, that there is nothing more fulsome‡ than a she-fool.

And touching the guiding of thy house, let thy hospitality be moderate, and, according to the means of thy estate, rather plentiful than sparing, but not costly; for I never knew any man grow poor by keeping an orderly table. But some consume themselves through secret vices, and their hospitality bears the blame. But banish swinish drunkards out of thine house, which is a vice impairing health, consuming much, and makes no show. I never heard praise ascribed to the drunkard but the well-bearing his drink, which is a better commendation for a brewer's horse or a drayman than for either a gentleman or a serving man. Beware thou spend not above three or four parts of thy revenues, nor above a third part of that in thy house; for the other two parts will do no more than defray thy extraordinaries, which always surmount the ordinary by much; otherwise thou shalt live, like a rich beggar, in continual want. And the needy man can never live happily nor contentedly; for every disaster makes him ready to mortgage or sell. And that gentleman who sells an acre of land sells an ounce of credit; for gentility is nothing else but ancient riches. So that, if the foundation shall at any time sink, the building must needs follow. So much for the first precept.

II. Bring thy children up in learning and obedience, yet without outward austerity. Praise them openly, reprehend them secretly. Give them good countenance, and convenient maintenance, according to thy ability; otherwise thy life will seem their bondage, and what portion thou shalt leave them at thy death they will thank death for it, and not thee. And I am persuaded that the foolish cockering§ of some parents, and the over-stern carriage of others, causeth more men and women to take ill courses than their own vicious inclinations. Marry thy daughters in time lest they marry themselves. And suffer not thy sons to pass the Alps; for they shall learn nothing but pride, blasphemy, and atheism.‖ And if by travel they get a few broken languages, that shall profit them nothing more than to have one meat served in divers dishes. Neither, by my consent, shalt thou train them up in wars; for he that sets up his rest to live by that profession can hardly be an honest man or a good christian. Besides, it is a science no longer in request than use. For soldiers in peace are like chimneys in summer.

III. Live not in the country without corn and cattle about thee; for he that putteth

* Well-born. † Irk. ‡ Disgusting. § Over-indulgence.
‖ In this strong aversion to foreign travel, Ascham sympathized.

his hand to the purse for every expense of household, is like him that keepeth water in a sieve. And what provision thou shalt want, learn to buy it at the best hand; for there is one penny saved in four betwixt buying in thy need and when the markets and seasons serve fittest for it. Be not served with kinsmen, or friends, or men intreated to stay; for they expect much, and do little; nor with such as are amorous, for their heads are intoxicated. And keep rather two too few, than one too many. Feed them well, and pay them with the most; and then thou mayest boldly require service at their hands.

IV. Let thy kindred and allies be welcome to thy house and table. Grace them with thy countenance, and further them in all honest actions; for, by this means, thou shalt so double the band of nature, as thou shalt find them so many advocates to plead an apology for thee behind thy back. But shake off those glow-worms, I mean parasites and sycophants, who will feed and fawn upon thee in the summer of prosperity; but, in an adverse storm, they will shelter thee no more than an arbor in winter.

V. Beware of suretyship for thy best friends. He that payeth another man's debt seeketh his own decay. But if thou canst not otherwise choose, rather lend thy money thyself upon good bonds, although thou borrow it. So shalt thou secure thyself, and pleasure thy friend. Neither borrow money of a neighbor or a friend, but of a stranger; where paying for it, thou shalt hear no more of it. Otherwise thou shalt eclipse thy credit, lose thy freedom, and yet pay as dear as to another. But in borrowing of money be precious of thy word; for he that hath care of keeping days of payment is lord of another man's purse.

VI. Undertake no suit against a poor man with receiving* much wrong; for besides that thou makest him thy compeer, it is a base conquest to triumph where there is small resistance. Neither attempt law against any man before thou be fully resolved that thou hast right on thy side; and then spare not for either money or pains; for a cause or two so followed and obtained will free thee from suits a great part of thy life.

VII. Be sure to keep some great man thy friend, but trouble him not for trifles. Compliment him often with many, yet small gifts, and of little charge. And if thou hast cause to bestow any great gratuity, let it be something which may be daily in sight: otherwise, in this ambitious age, thou shalt remain like a hop without a pole, live in obscurity, and be made a foot-ball for every insulting companion to spurn at.

VIII. Toward thy superiors be humble, yet generous.† With thine equals familiar yet respective. Toward thine inferiors show much humanity, and some familiarity: as to bow the body, stretch forth the hand, and to uncover the head; with such like popular compliments. The first prepares thy way to advancement,—the second makes thee known for a man well bred,—the third gains a good report; which, once got, is easily kept. For right humanity takes such deep root in the minds of the multitude, as they are more easily gained by unprofitable curtesies than by churlish benefits. Yet I advise thee not to affect, or neglect, popularity too much. Seek not to be Essex: shun to be Raleigh.§

IX. Trust not any man with thy life, credit or estate. For it is mere folly for a man to enthral himself to his friend, as though, occasion being offered, he should not dare to become an enemy.

X. Be not scurrilous in conversation, nor satirical in thy jests. The one will make thee unwelcome to all company; the other pull on quarrels, and get the hatred of thy best friends. For suspicious jests, when any of them savor of truth, leave a bitterness of mind of those which are touched. And, albeit I have already pointed at this inclusively, yet I think it necessary to leave it to thee as a special caution; because I have seen many so prone to quip and gird,‡ as they would rather lose their friend than their jest. And if perchance their boiling brain yield a quaint scoff, they will travel to be delivered of it as a woman with child. These nimble fancies are but the froth of wit."

* Though you receive. † Not mean. ‡ Mock and jibe.

§ Essex was the idol of the people; his rival, Raleigh, their aversion, till his undeserved misfortunes attracted their compassion, and his heroism their applause.

(2.) Sir William Peter, (or Petre,)—born at Exeter, and educated at Exeter College, Cambridge,—employed in visitation of the monasteries, obtained grants of many Abbey lands, was knighted and made secretary of state under Henry VIII., and died in 1572. He was a liberal benefactor to Exeter and All Soul's College.

(3.) Sir John Mason was born of obscure parents in Abingdon, but received a good education from his uncle, a monk of Abingdon Abbey, and at All Soul's College, and in consequence rose to important offices under Henry VIII., Edward IV., Queens Mary and Elizabeth. He was chancellor of the university of Oxford at the time of his death. His maxim was, "*DO, and say Nothing.*" He endowed liberally a hospital at Abingdon.

(4.) Nicholas Wotton, Doctor of Laws, and Dean of Canterbury, was a man of great abilities, and an intimate friend of Lord Burleigh, and employed by him in many important embassies to foreign princes, and was privy counselor to Henry VIII., Edward VI., and Queens Mary and Elizabeth,—secretary of state to Edward VI., and declined the offer of being made Archbishop of Canterbury by Queen Elizabeth. He died poor, when so many public men became rich in sequestration of abbey property.

(5.) Sir Robert Sackville, "although not himself a scholar, was a lover of learning, and all learned men;" and in his descendants, for many generations, the office of patron seemed hereditary. The name of his grandson, Charles, Earl of Dorset comes down to us loaded with the panegyrics of poets and artists whom he befriended. Prior's dedication to his son, is one of the most elegant panegyrics in the English language, and Pope's Epitaph will make Dorset longer remembered than all of his own writings.

(6.) Walter Mildmay was educated at Christ College, Cambridge, of which he afteward became a benefactor. He was knighted by Edward VI., and made chancellor of the exchequer in 1556 by Elizabeth. He was a man of learning, and an encourager of learning. He founded Emanuel College, Cambridge, where many of the early Puritan divines of New England, Hooker, Stone, Davenport and others, were educated. Of his benefactions to this college, he said to Queen Elizabeth, who was suspicious of the puritan tendencies of some of the professors, "I have set an acorn, which, when it becomes an oak, God only knows what will be the fruit thereof."

The fruit borne by this college was far from being acceptable to the church party in King James' reign. In the song of the "Mad Puritan," written by the witty Bishop Corbet the hero sings:

"In the house of pure Emanuel
I had my Education,
Where some surmise, I dazzled my eyes
With the light of revelation.
Bravely I preach
Hate cross, hate surplice,
Mitres, copes and rochets.
Come, hear me pray
Nine times a day,
And fill your heads with crotchets."

(7.) Walter Hadden, who became Master of Requests under Queen Elizabeth, Judge of the Prerogative Court of Canterbury, and Commissioner at the royal visitation of the University of Cambridge, was born in Buckinghamshire, in 1516, was educated at Eton, and King's College, Cambridge, where he was

professor of rhetoric and oratory, and, at one time, master of Trinity College. He stood amongst the foremost as a Latin scholar, and Queen Elizabeth, when asked which she preferred, Hadden or Buchanan, replied—"Buchananum omnibus antepono; Haddonum, nemini postpono." He was the principal compiler of the "Reformatio Legum Ecclesiasticarum." He died in 1572.

(8.) Mr. John Astely, or Asterly, Master of the Jewel House, was the author of a treatise on Riding, entitled—"*The Art of Riding, set forth in a Briefe, with a due Interpretation of certain places, alledged out of Zenophon and Gryson, very expert and excellent Horsemen: wherein also the true use of the Hand by the said Gryson's Rules and Precepts is shown.*" 1584.

(9.) Mr. Bernard Hampton was educated at Cambridge, and clerk of the Privy Council.

(10.) M. Nicasius was a Greek of Constantinople, who visited England in the time of Queen Elizabeth, partly to promote a union between the Greek Church and the Church of England, and partly to collect what charity he could for the distressed Christians of his own country.

(11.) Roger Ascham, in respect to scholarship, knowledge of the world, and conversational talent, was second to no one in the goodly company of eminent and learned men assembled that day in the chambers of Sir William Cecil.

(12.) Beating was early recognized as an essential part of an English institution of learning, and neither prince or pew was spared the salutary infliction of the rod. Archbishop Anselm protested against its use in 1070, as calculated to "convert men into brutes," and, in the "Paston Letters," Mrs. Agnes Paston instructs Mr. Greenfield, tutor of her son, "to truly belash him until he will amend." In the same curious collection will be found the articles by which the Earl of Warwick, when he took charge of Henry VI., binds the Earl of Gloucester and the Council to stand by him "in chastising him, (the young king,) in his defaults," although he should "in conceit of his high and royal authority" "loathe the chastening." We shall have more to say on this topic hereafter.

(13.) Sir Thomas Smith, for a time Provost of Eton College, and university orator at Cambridge, was born in 1514, and educated at Queen's College, and coöperated with Sir John Cheke in introducing the pronunciation of Greek, as advocated by Erasmus. He was author of a treatise on a reformation of the spelling of the English languge, entitled "*De recta et emendata lingua Anglicæ Scripturæ.*" In 1548 he was advanced to the office of secretary of state, and knighted. In 1578 he was the author of an act of Parliament, by which the Universities of Oxford and Cambridge, and the two colleges of Eton and Winchester, were authorized to require in their leases that a third part of the old rent should be paid in kind; a quarter of wheat for each 6*s.* 8*d*, or a quarter of malt for every 5*s*; or that the lessee should pay for the same according to the price that wheat and malt should be sold for, in the market next adjoining to the respective colleges, on the market day before the rent comes due.

(14.) Sir John Cheke, whom Ascham characterizes as "one of the best scholars" and "the conningest masters of his time," was born in Cambridge in 1514, was educated at St. John's College, which he afterward, as professor, assisted to build up to be the chief seat of learning, especially in Greek, and where he trained such scholars as Cecil, Ascham, Hadden, Bill, &c.; was entrusted with the education of Prince Edward, by whom, when he became King, he was knighted, made Privy Councilor, and one of his Secretaries of State;

served in several educational and ecclesiastical commissions; promoted the appointment of good men to office; became involved in the civil and theological troubles of his times; and died in 1557, at an age when his country had most to expect from his learning and experience. He was a great promoter of the study of Greek, and its correct pronunciation, and labored with his friend, Sir Thomas Smith to give prominence to the Saxon element in the English language, and to rid its orthography of many of its anomalies. For this purpose he made a new translation of the Gospel of St. Matthew, in which he strove to use only English Saxon words. See Strype's *Life of Sir J. Cheke.*

(15.) JOHN STURM, or STURMIUS, was born at Schleiden, near Cologne, was educated at Liege, Louvain and Paris, and for forty-five years was rector of the gymnasium and college at Strasburg, which he established and made the best classical school in Europe. He was much consulted in the drafting of school-codes, and in the organization of gymnasia, and his "Plan for organizing institutions of learning," his "Classic Letters," addressed to the teachers of his own school, and his editions of classic authors, entitle him to a prominent place in the history of "Pedagogics." Raumer, in his "History of the Science and Art of Teaching," devotes a chapter to Sturm's system of education.

(16.) THEAGES is not considered by many scholars worthy of Plato, and its authorship is attributed to Antipater, the teacher of Panætius, and the disciple of Diogenes of Babylon.

Theages desired "to become a wise man," to the great trouble of his father, Demodocus, who resorts to Socrates for counsel. Socrates replies in the language of the proverb, applied to those who came to counsel the oracles "*Counsel, Demodocus, is said to be a sacred thing;*" and then adds, "*If then any other consultation is sacred, this is so, about which you are now considering. For there is not a thing, about which a person may consult, more divine than about the instruction of himself and of those related to him.*" After probing the young man by questions, Socrates concludes to receive him into his companionship.

(17.) Plato in the Dialogues on the Republic, exhibits the misery of man let loose from law, and a general plan for making him subject to law, as the sure way of perfecting his nature. In the seventh dialogue, from which Ascham quotes, Plato unfolds the province of a good early education, in turning the eyes of the mind from the darkness and uncertainty of popular opinion, to the clear light of truth, and points out some of the uses of mathematics and gymnastics, in quickening and enlarging the apprehension, and inuring to intense application. In this connection he asserts:

"*Every thing then relating to arithmetic and geometry, and all the previous instruction which they should receive before they learn dialectics, ought to be set before them while they are children, and on such a plan of teaching, that they may learn without compulsion. Why so? Because, said I, a free man ought to acquire no training under slavery; for the labors of the body when endured through compulsion do not at all deteriorate the body; but for the soul, it can endure no compulsory discipline. True, said he. Do not then, said I, my best of friends, force boys to their learning; but train them up by amusement, that you may be better able to discern the character of each one's genius.*"

This, too, was the doctrine of Quintilian, in Inst. Lib. 1. c. 1, 20:—Nam id in primis cavere oportebit, ne studia, qui amare nondum potest, oderit et amaritudinem semel perceptam etiam ultra rudes annos reformidet.

IX. LIFE AND EDUCATIONAL SYSTEM OF JOHN STURM.

FROM THE GERMAN OF KARL VON RAUMER.*

JOHN STURM, or Sturmius, as his name was latinized, one of the best classical scholars and school teachers of his time, was born at Schleiden, in the Eiffel, near Cologne, in 1507. His father was steward to Count Manderscheid, with whose sons the young John was educated until his fourteenth year, when he went to the school of the Hieronymians† at Liege, and hence, in 1524, to the University of Louvain, where he spent three years in studying, and two more in teaching. Of his parents and early teachers he ever spoke with gratitude and veneration, and his mother he characterizes as a "superior woman." Among his fellow-students was Sleidanus, the historian, and Andreas Bersalius, the anatomist.

In connection with Rudiger Rescius, the professor of Greek at Louvain, Sturm established a printing press, from which Homer and other Greek and Roman classics were issued. With copies of these books for sale, and for use by students, he removed to Paris, in 1529, where he studied medicine, read public lectures on logic, and the Greek and Roman classics, got married, and had private scholars from Germany, England, and Italy. Here he established a high reputation as a scholar and teacher, and corresponded with Erasmus, Melancthon, Bucer, and others. Such was his reputation as a classical scholar and teacher that, when the magistrates of the city of Strasburg‡ decided

*_Geschichte der Pädagogik._ The biographical portion of Von Raumer's chapter is abridged, and that portion which treats of the theological controversies of the times, and particularly of the differences between the German, and the Swiss, and French reformers, with the former of whom Sturm sympathized, and to some extent coöperated, is altogether omitted. Sturm was avowedly a Lutheran, and the Calvinist charged him with absenting himself from the communion table and from church for twenty years.

† The Hieronymians were a regular order of canons, or clergy, employed in teaching, founded by Gerhard Grovte, in 1373. They wore a white dress, with black scapula, and were most numerous and efficient in the Netherlands, where they originated. They were also known as Hieronymites, Hermits of St. Hieronymus, Collatian Brothers, Gregorians, or Brethren of Good Will. The instruction in their schools was partly elementary and partly classical. Their scholars learned to copy MSS., to read and write, were diligently drilled in speaking Latin, and in the study of the Scriptures, the Fathers, and a few of the classics, especially Cicero. See *Raumer, Hist. of Ped.*, Vol. 1, p. 64: Cramer, *Hist. of Ed. in the Netherlands*, p. 260, et seq. It was at Liege, from the Hieronymians, that Sturm received the educational principle which he afterward embodied in his own school at Strasburg, "Pietas sapiens et eloquens est finis studiorum."

‡ A theological school was proposed in 1501, but not established till 1534. In 1538, a number

to establish a gymnasium, he was earnestly solicited to organize and conduct it as Rector. He accordingly, in 1537, removed to that city, where he labored for forty-five years as a teacher, and, by his example, correspondence and publications, was greatly influential in introducing a better organization and methods of instruction into the schools of Europe. His plan of organizing a gymnasium or classical school was drawn up in 1538, and published under the title of "*The best mode of opening institutions of learning.*" The development of this plan was exhibited in Letters which he addressed to the teachers of the various classes of his Gymnasium, in 1565, and in an account of the examination of the school, published in 1578.

On the 7th of December, 1581, by a decree of the city council, Sturm was deposed from the Rectorate, "on account of his advanced age, and for other reasons," viz.: publishing a pamphlet, in which he opposed the dominant religious majority in some of the theological disputes of the day. He was soon after attacked with blindness, and, worn out by the labors of a toilsome life, and weakened by age, and pinched by poverty incurred by his generosity to those who fled to him from persecution, he died in 1589, in the eighty-second year of his age, and was buried in the church-yard of St. Gallus, in Strasburg.

Sturm was a man of medium size, dark and ruddy complexion, firm features, long beard, clear and well-modulated voice, honorable presence, and a somewhat slow gait. He was amiable and dignified, in conversation earnest and courteous, in action decided and prompt, and industrious both in his public and private relations. He was ever keeping pace with those about him, learning Hebrew, for instance, in his fifty-ninth year, and inspiring his teachers with his own enthusiasm. He enjoyed the respect of the emperors Charles V., Ferdinand I., and Maximilian II., as well as of Queen Elizabeth, of England. His fame as a teacher and educator was European, and his school was a Normal School of classical instruction. His pupils were among the "men of mark" throughout Germany. At one time there were two hundred noblemen, twenty-four counts and barons, and three princes under his instruction; and, besides organizing directly many classical schools, his pupils rose to be head-masters of many more, and his principles were embodied in the School Code of Wurtemberg in 1559, and in that of Saxony in 1580, and in the educational system of the Jesuits.

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of elementary schools were instituted, which were placed under the direction of school inspectors, of whom the preacher, James Sturm, was one, and through whose influence John Sturm was induced to remove to Strasburg. The gymnasium organized in 1537 was endowed with the privileges of a College, in 1567, by Emperor Maximilian II., and John Sturm was appointed its Rector *in perpetuo*.

STURM'S SYSTEM OF INSTRUCTION.

Whoever clearly conceives a distinct object of pursuit, and brings perseverance, intelligence and tact to bear upon its attainment, will be sure, at least, to do something worthy of note; and especially so, when, at the same time, he falls in with the tendency and the sentiments of the age in which he lives. This is, above all, true of school reformers. If they know not what they would have, if they have no definite aim in view, it is impossible for us to speak with any propriety of the methods which they may have taken to reach their aim. Their course is wavering and uncertain, and they inspire distrust instead of confidence. But Sturm was no wavering, undecided, purposeless man. With firm step he advanced toward the realization of a definitely conceived ideal; an ideal, too, which, in greater or less distinctness, floated before the minds of most of his contemporaries, and which was regarded by them as the highest aim of mental culture. Hence, he enjoyed a widely extended and an unquestioning confidence. This, his ideal, Sturm has defined for us in numerous passages; and it is our first duty to examine it, if we wish to judge of his method.

"The end to be accomplished by teaching," says he, "is three-fold; embracing piety, knowledge and the art of speaking." In another place, he expresses himself thus; "A wise and persuasive piety should be the aim of our studies. But, were all pious, then the student should be distinguished from him who is unlettered, by scientific culture and by eloquence, (*ratione et oratione.*) Hence, knowledge, and purity and elegance of diction, should become the aim of scholarship, and toward its attainment both teachers and pupils should sedulously bend their every effort." What description of knowledge, and what species of eloquence Sturm had in view, we shall now proceed to inquire.

The boy should be sent to school,—so he insists,—in his sixth or seventh year. His school education proper should occupy nine years, or until he is sixteen; it should then be succeeded by a more independent style of culture. Lectures should be substituted for recitation, and that for five years, or until he is in his twenty-first year.

The Gymnasium included nine classes, corresponding with the nine years that the pupil was to spend there. Seven of these years Sturm assigned to a thorough mastery of pure, idiomatic Latin; the two that remained were devoted to the acquisition of an elegant style; and to learn to speak with the utmost readiness and propriety, was the problem of the five collegiate years. During the first seven years

of the child's life, he was to be left in the care of his mother. Every year the scholars in the lower classes were to be promoted, each into the next higher class, and premiums were to be awarded to the two best scholars in each class.

Thus, Sturm expressed himself, in 1537, in the "Plan," on which he organized his school, in which, he gives a full sketch of the course of study to be pursued by each class. And, the arrangement, thus previously indicated, was essentially the same after the lapse of twenty-seven years, save that the Gymnasium then embraced ten classes, instead of nine. This appears from the "Classic Letters" which, in 1565, Sturm wrote to the teachers of the various classes. Forty years after the foundation of the Gymnasium, in 1578, a general examination took place, the particulars of which were recorded with the faithful minuteness of a protocol. And this, again, as well as the "Classic Letters," harmonizes, in the main, with Sturm's original plan of instruction. And, in all this, the observation forces itself upon us that, as he proposed to himself a well-marked and distinct aim at the outset of his career, so he advanced toward that aim through all those long years with an iron will and a steady step.

I will now give Sturm's course of instruction in detail, on the authority chiefly of the report above mentioned of the examination of the school, and of the "Classic Letters." We will commence, following the order of the "Letters," with the exercises of the tenth or lowest class, and so proceed to the first.

Tenth Class.—To Frisius, the teacher of this class, Sturm writes, "That he is to lay the foundation; to teach the children the form and the correct pronunciation of the letters of the alphabet, and, after that, reading; which will be better expedited by learning Latin declensions and conjugations than by the use of the catechism. The German catechism must be committed to memory, for the Latin would be a mere matter of rote. The love of the children will reward him for his pains; as he himself (Sturm) can testify from his own grateful recollections of his earliest teachers. At the examination, (in 1578,) the first scholar in the ninth class put the following questions to the first scholar in the tenth.

Q. What have you learned in the tenth class?

A. Letters, spelling, reading and writing, all the paradigms of nouns and verbs, and the German catechism likewise.

Q. Read me something from the *Nemisei* of our Rector.

A. An tu non es Lucius socius studiorum meorum, qui modo a me e foro discesseras?

Q. What is the meaning of *socius*?

A. A companion.

Q. Decline *socius*.

A. Socius, socii, socio, etc.

Q. What is the meaning of *discedo*?

A. I go away.
Q. Conjugate *discedo.*
A. Discedo, discedere, etc.
Q. To what conjugation does *discedo* belong?
A. That I have not learned.

Ninth Class.—To Schirner, the teacher of this class, Sturm writes, "That he is to ground the scholar more thoroughly in declining and conjugating, adding all the anomalous and irregular forms. Then, too, he must see that the scholars learn a great number of Latin words, particularly the appellations of common and familiar objects. Of such words, he must every day give a few to one scholar, a few to another, and so on, to commit to memory; only taking care not to select words at random, but in their natural groups, as organic systems, each formed upon a distinct and independent idea. Thus, too, each boy, by listening to the words which the others repeat, will himself the more readily fasten them in his own mind.

This method of enriching the memory with words, Sturm says, he should have introduced twenty-seven years before, had it been appreciated. How was it that Roman youths, at so early an age, learned to express themselves with ease and propriety? They prattled in Latin on their mother's breast; the nurses, in whose care they were placed, talked to them in infantile dialect in broken Latin; and this, as they grew older, was gradually corrected. And then the children were continually learning new words from the household servants, who played with them, not simply to amuse them, but likewise to exercise them in speaking Latin. To this we must add their daily intercourse with their companions, in which the older boys derived an ever increasing knowledge, both of words and things. All this the youth of the present day lack entirely, as neither parents, domestics, nor comrades speak Latin. "This evil," continues Sturm, "must be removed by the diligent efforts of the teacher, and in the way which I have indicated." In another place he repeats the same complaint. "Cicero," he says, "was but twenty years old when he delivered his speeches in behalf of P. Quintius and Sextius Roscius; but, in these latter days, where is the man, of fourscore even, who could bequeath to the world such masterpieces of eloquence? And yet, there are books enough, and there is intellect enough. What, then, do we need further? I reply, the Latin language, and a correct method of teaching. Both these we must have, before we can arrive at the summit of eloquence." In conclusion, Sturm implores Schirner not to undervalue, for a moment, his labors with the elementary class; but, to stand up as a champion against those gladiators of barbarism who from indolence have corrupted, or from envy have withstood, the purity of the Latin tongue.

At the examination, the first in the eighth class asked the first in the ninth, as follows.

Q. To what conjugation does *discedo* belong?
A. To the third, because it makes e short before re in the infinitive.
Q. To what class does *discedo* belong?
A. It is a neuter verb.
Q. What is a neuter verb?
A. A neuter verb is, &c.
Q. Decline the imperative of *discedo*.
A. *Discede, discedite*, etc.
Q. What else have you learned in the ninth class?
A. Besides the German catechism, I have committed to memory the *Second Onomasticon*, and translated the *Nemisci* of our Rector into German.
Q. Translate the dialogue that has just been rehearsed.
A. *An tu non es Lucius*, Are you not Lucius; *socius studiorum meorum*, my school-fellow; *qui*, who; *discesseras*, went; *a me*, from me; *modo*, just now; *e foro*, at the market place.
Q. To which of the parts of speech does *modo* belong?
A. I do not know; for the indeclinables are not taught in my class.

Eighth Class.—To Matthias Huebner, teacher of this class, Sturm writes, "That it must be his especial care that the boys forget nothing they have learned in the lower classes. And what they have there learned he can best ascertain by consulting their prescribed school-books, which in all the classes are most faithfully conformed to.

The boys, who have been promoted from the ninth into the eighth class, must be able to inflect all the nouns and verbs. This they will have learned more by practice than in a scientific manner, just as the Roman and Greek boys were exercised in language before the grammarians gave them the reasons why they ought to speak as they did. Moreover, the boys in the next lower class had learned by heart many short sayings and sentences; but, since in these no very wide range of words occurred, they were enjoined to compile dictionaries, and to enter therein all the common and necessary words under distinct heads, such heads for instance as the following, the *whole* and its *parts*, *friendship* and *enmity*, *cause* and *effect*, etc. These dictionaries must now, in the eighth class, be increased and enlarged; if the boys have before fixed in their minds the definition of *epistola*, they will now learn what is meant by the phrase *epistolam reddere*, etc. As the boys in the lower classes have learned by practice how to decline and conjugate, so now they must be thoroughly grounded in all the eight parts of speech, and each declension and conjugation must be fully and distinctly characterized, and illustrated by examples drawn from that which they have already learned.

Besides this, they are to read the select letters of Cicero with constant reference to the grammatical construction of the language; and, in such reading, different letters are to be assigned to the different *decuriae*.*

* The classes were subdivided into *decuriae*, or tens; the first in each *ten* was called the *decurion*.

During the last months of their school-year, the boys of this class are to commence a series of exercises in style, which will take the place of their previous oral practice in the formation of new, or the alteration of given Latin phrases.

At the examination, the first scholar in the seventh class put to the first scholar in the eighth class the following questions, beginning as before with the last of the preceding series.

Q. Tell me, to which of the parts of speech *modo* belongs.
A. It is an adverb of time.
Q. What is an adverb?
A. It is an indeclinable part of speech, &c.
Q. How many indeclinable parts of speech are there?
A. Four, &c., &c.
Q. What else have you learned in your class?
A. Besides a fuller etymology, we have read the first book of the select letters of Cicero, the fourth dialogue in the *Neanisci*, the last part of the *Second Onomasticon*, and the German Catechism.
Q. Read a letter from Cicero.
A. Cicero filius Tironi S. P. D. *Etsi justa et idonea usus es excusatione intermissionis*, etc., etc.
Q. Translate what you have read.
A. Etsi usus es, although you have offered; *excusatione justa*, a just apology, etc.
Q. To what part of speech do you refer *idonea*?
A. It is an adjective; in the ablative case, and singular number.
Q. How do you form its comparative?
A. By prefixing *magis*; *magis idoneus*.
Q. By what rule do we say *uti excusatione*?
A. Syntax is not taught in my class.

Seventh Class.—Sturm writes to Lingelsheim, the teacher of this class, "It must be his care that the scholars do not lose any thing of that which they have learned in the three preceding classes; and then that they should add to what they have already learned;—in the first place, Latin syntax. This must contain but few rules, must be clear, and set forth by examples, and that chiefly from Cicero. In the daily reading of Cicero's letters, the rules of syntax, through constant use, must be more and more impressed on the memory. Pliny says that we must read much, but not many things; in this class, however, many things must be read, in order to arrive at much.

Subjects must be assigned to the scholars for their exercises in style; but, in the treatment of such subjects, conciseness must be aimed at. The teacher should render assistance in this matter, either orally or by writing, (on the blackboard,) constructing sentences beforehand, as music-teachers sing first what they wish their pupils to learn. The subjects are to be drawn from what the scholars have learned in this or the previous classes, so that the exercise in style shall involve a repetition, and thus refresh the memory. And, for such an exercise on Sundays, the German Catechism is to be translated. This translation must be made in classical Latin, such words alone excepted as

have been authorized by the church, as *Trinitas, sacramentum, baptismus*, etc. The scholars in this class should, by no means, use any other catechism than that which they have had before in the lower classes.

At the examination, the first in the sixth class, asked the first in the seventh:

Q. By what rule do we say *idoneus uti excusatione?*
A. *Utor, fruor, fungor*, etc
Q. *Excusatione idoneus?*
A. Adjectives, pronouns and participles, etc.
Q. *Excusatione intermissionis?*
A. One substantive governs another, etc.
Q. What else do you learn in your class?
A. We read two dialogues in the *Mosisci* of our Rector, the second book of the select letters of Cicero, the "Precepts" of Cato, the catechism, and the "Sunday Sermons;" and, in the first book of music, we learn the scale and intervals. Also, in my class, exercises in style are commenced.
Q. Read a sentence from Cato.
A. *Disce aliquid, nam quam subito fortuna recedit.*
Ars remanet vitamque hominis non deserit unquam.
Q. Translate this distich.
A. *Disce aliquid*, learn something; *nam*, for; *cum fortuna recedit*, when fortune fails, etc,
Q. *Disce aliquid;* what is the rule for this construction?
A. A verb signifying actively, etc.
Q. For *cum subito recedit?*
A. Adverbs qualify verbs, etc.
Q. Read something in Greek.
A. I have not read any Greek in my class.

Sixth Class.—To Malleolus, the teacher of this class, Sturm writes, "That, from the examination of the scholars of the seventh class for their promotion, he has learned their progress. He is to consider that to keep what has been acquired is no less an art than the first acquisition of it. The longer letters of Cicero may now be translated into German, and in such an order that different letters shall be assigned to different *decuriae*. And, in a similar manner, he is to proceed with poetical selections. The first *decurion*, for example, may repeat the "*Veni redemptor gentium*" of Bishop Ambrose; the second, Martial's epigram, "*Vitam quae faciunt beatiorem;*" the third, the ode of Horace, commencing with "*Rectius vives, Licini, neque altum*," for the teacher to translate and explain. Then each of the three may require a similar translation and explanation of the other scholars. In the writing exercises, pains is to be taken to arrive at a greater elegance of style.

Saturdays and Sundays are to be devoted to the translation of the catechism, and to the reading of some letters of Hieronymus.

Greek, moreover, is to be commenced in this class.

At the examination, the first in the fifth class asked the first in the sixth as follows:

Q. Read a fable from the Greek of Æsop.

A. Ἔλαφος καὶ Αἴων.
Ἔλαφος κυνηγους φευγουσα, etc.
Q. Decline *Ἔλαφος*.
A. Ὁ καὶ ἡ Ἔλαφος, etc.
Q. What is *Φευγουσα*?
A. A participle, from *φευγω*; future, *φευξω*.
Q. What have you read in Latin?
A. The last two books of the select letters of Cicero, the Andria of Terence, the first book of poetry, the *Syntaxis Figurata*, the shorter Latin catechism of Luther, and the Sunday Sermons. In music, we have attended to the science of time.
Q. Read something from the fifth book of the *Tristia* of Ovid.
A. *Littora quot conchas, quot amœna rosaria flores*
Quotve superiferum grana papaver habet, etc.
Q. *Litora*, etc. What kind of construction is this?
A. It is a zeugma; for the verb agrees in number with the nearest nominative, etc.
Q. How does zeugma differ from syllepsis?
A. In syllepsis, the adjective or verb agrees with the most important word; but, in zeugma, with the nearest.
Q. *Conchas*; what is the quantity of its first syllable?
A. The quantity of syllables is not taught in the sixth class.

Fifth Class.—Sturm writes to Bitner, the teacher of this class, that the boys come to him well versed in grammar, provided with a store of Latin words for every-day objects, the German appellations for which had become familiar to them beforehand. But now, in the fifth class, objects entirely unknown to the boys, and words, designating such objects, also equally unknown to them, are to be brought forward. Since they have as yet heard nothing relative to the art of poetry, they are now to be made acquainted with metre, with the quantity of syllables, and with the varieties of feet and of verses, and metrical examples are to be given to them. And further, they must learn mythology; and, in addition to Cicero's Cato and Laelius, must read the Eclogues of Virgil. Instruction in Greek is to be continued. The boys are to learn the Greek words for virtues and vices, for manners, practices and customs, etc., and also to complete their encyclopædias of Latin words.

Style, too, is to be more thoroughly cultivated. And, toward the close of the school-year, they must practice the art of making verses; not, however, by composing poems upon given subjects, so much as by restoring the meter to stanzas that have been disarranged for the purpose. In this there is no occasion either for invention or for a choice of words; they are simply to put the words given them in their proper places.

It will be a good exercise to give the scholars some example of eloquence to translate into German, and then to make them reproduce it, extempore, in Latin again; for, in such case, the Roman orator himself, instead of the teacher, will act the part of prompter. Saturdays and Sundays one of the shorter Pauline epistles is to be interpreted.

At the examination, the first in the fourth class repeated the

question which the first in the sixth class could not answer; but directed it, as well as the succeeding questions, to the first in the fifth.

Q. What is the quantity of the first syllable of the word *conchas*?
A. It is long, by position. Position is, etc.
Q. What is the quantity of the last syllable of *littera*?
A. It is short, by the rule, etc.
Q. What sort of a foot is *littera*?
A. A dactyle; because the first syllable is long, the last two short.
Q. How many kinds of feet are there?
A. Three; those of two, three and four syllables, respectively.
Q. What do we construct out of such feet?
A. A poem or verse.
Q. What is a verse?
A. A metrical whole constructed of separate feet.
Q. What have you read besides in Latin?
A. Some of Cicero's letters to his friends, the first and second Eclogues of Virgil, the second book of poetry, and the shorter Latin catechism of Luther.
Q. What have you read in Greek?
A. The second part of the "Instruction in the Greek tongue," and the Sunday Sermons.
Q. What is the perfect tense of φεύγω?
A. πέφευγα.
Q. Why do you not say φέφευγα, as λέλεχα from λέγω?
A. Because, when the verb begins with a rough mute, the reduplication takes the corresponding smooth.
Q. What is the Second Aorist of φεύγω?
A. Ἔφυγον, formed from the imperfect, Ἔφευγον, by rejecting the first vowel of the diphthong.
Q. Conjugate Ἵστημι.
A. Ἵστημι, etc.
Q. Conjugate the anomalous verb Εἰμί.
A. The anomalous verbs and the Attic tenses, the teacher of the fifth class has not explained.

Fourth Class.—To Laurence Engler, the teacher of this class, Sturm writes, "That he receives the boys from the fifth class well grounded in Latin and Greek grammar, provided with a good store of choice words, and familiar with illustrations drawn from poets, and with a greater number still from orators. With all this in view, he must now see to it that the boys exert themselves to their utmost in listening, in interpreting, and in rehearsing from memory; but he must be careful, at the same time, not to task them beyond their powers. The sixth oration against Verres, which includes nearly all kinds of narration, must be read; further, the epistles and satires of Horace; and, in Greek, together with the grammar, the "Book of Examples." That which has been learned, in the preceding classes, must be repeatedly recalled into the memory. Diligent practice must be bestowed on style; and, on Saturdays and Sundays, the shorter Pauline epistles are to be read by the boys, who are to explain them as they read, but in the plain manner of paraphrase alone.

At the examination, the first of the third class asked the first of the fourth as follows:

Q. Conjugate Εἰμί.
A. Εἰμί, Εἶς, etc.
Q. How is it in the middle voice?
A. Ἴσαμαι, and by epenthesis, Ἵσταμαι, from whence comes ἐπίσταμαι, I know.

Q. What have you interpreted in Greek?

A. Æsop's fables, and, on Sundays, the first epistle to Timothy.

Q. Repeat a Greek sentence to me.

A. *Τῶν νέων οἱ μηδὲν ἐπιστάμενοι, οὐ μεμπτοί εἰσιν, ὅταν αὐτοὺς οἱ γονεῖς οὕτως ἀγάγωσιν*, which means, etc.

Q. In what mood and tense is *ἀγάγωσιν*?

A. In the second aorist, subjunctive, from *ἄγω*; whose second aorist is *ἤγαγον*, or, by Attic epenthesis, *ἤγαγον*.

Q. How many metaplasms occur in *ἀγάγωσιν*?

A. Two; epenthesis and paragoge.

Q. What is paragoge?

A. The addition of a letter or a syllable to the end of a word, as *τουτονὶ* for *τοῦτον*, or *laudarier* for *laudari*.

Q. What Latin have you studied?

A. The Eclogues of Virgil, some odes of Horace, the second book of Cicero's "Letters to Friends," and his speech in behalf of Marcus Marcellus; also, a part of the Adelphi of Terence.

Q. Repeat something out of Horace.

A. *Integer vitæ scelerisque purus*
Non eget Mauri jaculis neque arcu
Nec venenatis gravida sagittis
Fusce pharetra.

Q. To what species of verse does this ode belong?

A. It is called *dicolon tetrastrophon; dicolon*, because two kinds of verse unite in its formation, namely, the Sapphic, of five feet, in the first three lines, and the Adonic, of two feet in the last line: and *tetrastrophon*, because the ode recurs, after every fourth line, to the same kind of verse with which it commenced.

Q. What figure is exemplified in *eget*?

A. A zeugma of speech.

Q. How does this differ from a zeugma of construction?

A. It is a zeugma of speech when the meaning of a verb or an adjective is applicable to every thing to which it is referred; as, in this sentence from Horace, *Linquenda tellus et domus et placens uxor*. But, if such meaning is not applicable to every thing, then a zeugma of syntax or construction is witnessed; as, for example, in the following:

Visendus ater flumine languido
Cocytus errans et Danai genus
Infame, damnatusque longi
Sisyphus Æolides laboris.

Q. Have you attended, also, to tropes?

A. No; our teacher has not told us any thing of them.

THIRD CLASS.—To Boschius, the teacher of this class, Sturm writes, "That he should not only give to the boys a firm hold on what they have already learned, but should extend the range of their studies; should open to them the graces of rhetoric, such as tropes, figures, etc., illustrating all by examples. The treatise of Herennius on rhetoric must be laid before them, and, with it, the speech for Cluentius must be read; and, in Greek, the best efforts of Demosthenes must be studied, besides the first book of the Iliad, or that of the Odyssey.

On Sundays, the Pauline epistles are to be read in the five upper classes, and, either entirely or in part, committed to memory. Style exercises are a matter of course; for style must be always incessantly practiced and improved. Selections from orations in Greek must be translated by the boys into Latin, or from orations in Latin into Greek. The historians and poets, too, may be turned to account in a similar manner; the odes of Pindar and Horace changed into a different

meter, many poems composed, many letters written, and other like tasks constantly undertaken.

The comedies of Terence and Plautus are, likewise, to be acted; and, in this matter, the boys are to be encouraged to rival the classes above them. All the plays of these two poets are to be acted by the four highest classes; twenty decuriae can accomplish this within six months. He, Sturm, had himself, three years before the revolt of the peasants, acted at Liege the part of Geta in the Phormio of Terence, and, although he had had no one to direct his practice, he yet derived great benefit from it.

At the examination, the first in the third class, a certain Baron von Sonneck, was catechised by the first in the second class, as follows:

Q. Since, O, noble Baron, I understand that you are acquainted with figures, allow me to ask you what a figure is?

A. A figure, (in Greek *σχῆμα,*) is an ornament of speech, substituted for a plainer and more direct mode of conveying thought.

Q. What else have you learned in the third class?

A. I have read the Menippus of Lucian, and the two Epistles of Paul to the Thessalonians.

Q. What have you read in Latin?

A. The third book of Cicero's Letters to his Friends, his speech *post reditum*, and the greater part of the sixth book of the Æneid.

Q. Repeat some prominent passage from Lucian's dialogue, the Menippus.

A. Menippus says to Philonides, concerning the punishment of the proud in Hades: *μυσάττει ὁ Ῥαδάμανθος τὴν ὀλιγοχρόνιον ὑλαζονείαν τῶν ἀνθρώπων, ὅτι μὴ ἐμέμνητο θνητοί τε ὄντες αὐτοὶ καὶ θνητῶν ἀγαθῶν τετυχηκότες.*

Q. What is the rule for the construction, *τετυχηκότες τῶν ἀγαθῶν*?

A. Participles are followed by the same cases as their verbs; but, verbs signifying "to obtain or to miss" govern the genitive in Greek; wherefore, *τυχεῖν* governs the genitive.

Q. Give me a verse from Virgil.

A. Æneas thus prays to Apollo: "*Phœbi, graves Trojae semper miserate labores.*"

Q. Can you show that these verses of the poet are constructed after the rules of art?

A. The critics of poetry lay down seventeen demands, (*accidentia,*) which must be conformed to in every verse. That Virgil has conformed to all these in the above verses, I will now attempt to shew. The measure is dactylic, as befits epic verse; the feet, (the dactyle and the spondee,) which are appropriate to this measure, being employed. In the ecassion, the cæsura, etc., the passage harmonizes with all the rules of the art.

Q. "You observe," continues the questioner, "that the noble Lord understands all these subjects, but I wish to know one thing further; is the phrase '*Phœbe da Latio considere Teucros*' a logically accurate proposition?"

A. To this point, with reference to the rules of logic, it is your part to respond.

SECOND CLASS.—To Renard, the teacher of this class, Sturm writes, that he himself is not to give a literal interpretation of the Greek poets and orators, but rather to assign that labor to the scholars; but he may, nevertheless, direct their attention to the relation which exists between oratorical and poetical usage, and may require them to copy striking passages from the classics in their commonplace-books.

And the like course is to be taken with Latin authors, and a comparison is to be instituted between these and the Greek.

Logic, the instrument of wisdom, must be laid before the scholars, the analytical or introductory part first, and afterward the synthetical or syllogistic; and rhetoric, too, must ever accompany logic, for which

study the "Institutes of Herennius" may be taken as a text-book. The teacher may read, with reference to rhetoric, the Olynthiac and Philippic orations of Demosthenes, and also some of Cicero's. What orations of Cicero shall he read? Either he may decide himself, or he may allow the boys to choose; for these should be often permitted to use their own judgment. Daily exercises in style are indispensable, and a higher point must be reached therein than in the previous classes.* The scholars may also write short dissertations, and deliver them either *memoriter* or from their notes.

On Sundays, the Epistle to the Romans is to be read, learned by heart, and recited by all. The scholars of this class must act the comedies of Terence and Plautus to greater perfection than those below them can do; and, later in their course, they may represent a play of Aristophanes, Euripides, or Sophocles, which the teacher has first expounded to them; and, if they should wish to take up any others afterward, they may do so at their own risk, as those who are self-instructed.

At the examination, the first in the first class put to the first in the second the same question which the first in the third had left unanswered.

Q. Resolve me this question in dialectics, is "*Phœbe, da Latio considere Teucros*," a completed or logically accurate proposition?

A. It is not, and I thus prove why it is not. A completed proposition is a perfect sentence, in which the noun is united to the verb, and which enunciates either a truth or a falsity. But, this phrase embodies neither that which is true nor that which is false. Therefore, I conclude that it is not a completed proposition.

Q. From what part of logic, and for what reason, do you so conclude?

A. From the part that relates to definition; upon the rules of which part I take my stand, and thence argue again. If a sentence does not conform to some one logical definition, that which is conveyed by this definition is not applicable to such sentence. But the phrase in question does not conform to the definition of a completed proposition. Therefore, the term "completed proposition" is not applicable to this phrase.

Q. But here is another rule of dialectics: From pure negations no conclusion can follow. Your propositions are pure negations; therefore, your conclusion is a *non sequitur*.

A. I deny the *minor* of your argument; for my second proposition is an indirect affirmation. Hence, my syllogism, since it is stated in the terms of the figure called Ferio, remains impregnable.

Q. Allow me to ask you whether you would call your syllogism demonstrative, argumentative, or sophistical.

A. To judge by its purport, I would call it demonstrative. But, if you were to require more of me, as that I should answer with respect to the science of demonstration or to sophistical arguments, I could not satisfy you; for the precepts of these are not taught in the second class.

Upon this the questioner proceeds as follows:

Q. What have you read in rhetoric?

A. The first and second dialogues of Dr. Sturm upon Cicero's divisions of the oration, in which is discussed the five-fold problem of the orator; namely, invention, disposition, expression, action and memory.

Q. Does not judgment belong here, too?

A. Orators class judgment under the head of invention; for, invention supposes a selection of the best arguments, and certainly we must discriminate and judge when making such selection.

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* It is incredible, Sturm adds in this place, how much one can accomplish by effort, by imitation, by emulation, and by the belief that all obstacles yield to art and industry.

Q. What other authors have you read?

A. The second Philippic of Demosthenes, and Cicero's pleas in behalf of Roscius Amerinus and Caius Rabirius, besides the first book of the Iliad.

Q. Why the name Iliad?

A. Because it is a narration of events and exploits, of which Ilium or Troy was the theatre.

Q. What species of argument (*status*) is employed in the plea for Rabirius?

A. I have heard it called the conjectural argument;* but I am no more familiar with the nature of arguments than with that of the various subdivisions of the oration.

First Class.—To Goelius, the teacher of the first class, Sturm writes, that he is to carry logic and rhetoric to a further extent, though not to their perfection, after the manner of the Aristotelians and the Greek rhetoricians; for this should be deferred until the boys have left the gymnasium, and then should be achieved by means of a shorter method composed by himself, (Sturm,) a method which, though not following Aristotle throughout, yet contains all the divisions and subdivisions (*genera et partes*) which are to be found in Aristotle, Hermogenes, and Cicero. The rules of logic and rhetoric are to be applied, by way of illustration, to Demosthenes and Cicero. And, to the same end, too, what remains of Virgil, and some portion of Homer, should be read; for, these poets, Homer especially, have conduced greatly to the perfection of oratory.†

Thucydides and Sallust are to be translated in writing by the scholars themselves, some having these passages, and others those, assigned to them; not all taking the same.

In this class, too, the dramatic representations are to be more frequent, and not a week is to elapse without its play.

Of the scholars, Sturm desires a thoroughly cultivated facility in writing and in declamation: all that they produce, whether in prose or in poetry, must be artistic.

The Epistles of St. Paul are to be expounded by the scholars, and prominent passages of the same, after the manner of the rhetoricians, are to be amplified.

At the examination, one member of the first class asked another, as follows:

Q. Tell me what you have read in the first class?

A. In the logic of Dr. Sturm, I have learned the precepts of demonstrative and sophistical syllogisms; in rhetoric, the last two dialogues upon Cicero's divisions of the oration, and his three books "De Officiis;" besides the Phœnissæ of Euripides; out of Demosthenes, Philip's letter, and Demosthenes' reply to the same; the latter part of the catechism of Chytræus; and, on Sundays, St Paul's epistle to the Galatians.

Q. What is a demonstrative syllogism?

A. It is a conclusion drawn from necessary truths, and of special use in extending the area of knowledge. For, thus says Aristotle, "Demonstration is the syllogism of science, predicated upon necessary propositions," as for instance:

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* The conjectural argument, (*status conjecturalis,*) or the "*An sit*" of Quintilian, consists wholly and solely of an attempt to establish or to set aside the *truth* of the charges alledged.

† "I am convinced that the rules of each species of oratory, as well as the ornaments of each, can be shewn to exist in Homer; so that, if the art of eloquence were extinct, it could be fully restored from this rich fountain."—*Sturm.*

Every cause is antecedent to its effect;
The rising of the sun is the cause of day;
Therefore, the rising of the sun is antecedent to the day.

Q. Of what nature is this demonstration?

A. It is a perfect demonstration, and is called by Aristotle τοῦ διότι, (of the Why.) It consists of true propositions, primary, not secondary; the more prominent, the antecedent, and those which are the causes of the conclusion, and which furnish us with demonstrative science.

Q. Is there any other species of demonstration?

A. There is; namely, the imperfect demonstration, which is called τοῦ ὅτι, (of the Because;) when the conclusion does not flow from primary or direct, but from intermediate propositions, or from effects, or secondary and remote causes, as if I should say,

Wherever it is day, there the sun has arisen;
But, it is day with us;
Therefore, with us the sun has arisen.

This is the demonstration *a posteriori*. For the cause is demonstrated from its effect. The day is not the cause of the sun's appearance; but, the rising of the sun *is* the necessary and efficient cause of the day.

Q. Since, then, you assert that the rising of the sun is the cause of day, what would you say if I should prove to you that it is not yet day with us?

A. I would like to hear whether you can truly demonstrate what you thus advance.

Q. Is not the state of things at Frankfort different from that which obtains here at Strasburg?

A. Yes.

Q. Is it not day now at Frankfort?

A. So I imagine.

Q. Then it is not day with us at Strasburg.

A. I deny your consequence. For you have stated a fallacy in the form of the seventh species of the *ignoratio elenchi*. Your terms do not both refer to the same thing, (πρὸς αὐτό,) but each to a different point, (πρὸς ἄλλο.) The major of your argument possesses nothing in common with the minor; therefore, your conclusion is a *non sequitur*.

Q. Then, you have studied sophistics, if I may judge by your rejoinder.

A. Yes; I have learned the rules of that art as they have been delivered to us by our illustrious rector, Dr. Sturm, from the sophistical problems of Aristotle.

Hereupon the respondent exposed the fallacy of the two following sophisms.

(1.) He who is well versed in sophistical reasoning seeks to deceive others by his conclusions. You say that you are well versed in sophistical reasoning; you, therefore, seek to deceive me.

(2.) He who has five fingers on one of his hands, also has three, and two, and has five, likewise. But, he who has three, two, and five, has ten. Whoever, therefore, has five fingers on one of his hands, has ten on the same hand.

In rhetoric there was no examination, but the questioning proceeded as follows:

Q. What have you learned in your class, of mathematics?

A. To that which we learned in the second class we have added astronomy, and some problems from the first book of Euclid.

Q. In what manner do astronomers measure the primary movement (*primum motum*) of the heavens?

Q. By means of ten circles; namely, the horizon, the meridian, the equator, the zodiac, 2 colures, 2 tropics, and 2 polar circles.

Q. Are these circles visible?

A. No; they are imaginary, and conceived to result from the movements of certain celestial points and lines.

Q. What is the name of the first circle?

A. The Greeks called it ὁρίζων, (horizon,) from ὁρίζειν, to limit; and the Romans, *finitor*.

Q. How is it situated, with respect to the axis of the earth?

A. When it passes through the poles it is in a *right* position; but, when one pole is above it, while the other is below it, it is *oblique*. Whence, the one sphere is called *right*, the other *oblique*.*

* As this definition is not sufficiently clear, I will quote the more intelligible words of John

Q. What purpose does the horizon serve?

A. To divide the celestial sphere into an upper and a lower half, and thereby mark out those periods of its primary motion which determine day and night. When the sun is in the upper hemisphere, it is day; when in the lower, night. The stars, at their rising, come up above the horizon; at their setting, they sink below it.

Q. Which is the second circle?

A. The meridian. This passes through the zenith and the poles.

Q. For what does it serve?

A. For the determination of latitude. The celestial sphere it divides into an eastern and a western half. It likewise halves the arc of day, and the arc of night, so that when the sun crosses this circle in the upper hemisphere, it is mid day; when it crosses it in the lower, it is midnight. It also divides the day into forenoon and afternoon.

Q. Which is the third circle?

A. The equator; so called from its equalizing day and night.* It runs from east to west, and is, at all points, equi-distant from the poles.

Q. For what does the equator serve?

A. From it we reckon longitude. The celestial sphere it divides into a northern and a southern half. The primary motion of the heavens it measures off into periods by twenty-four arcs, which, in the order of their *ascension*, mark the course of the twenty-four hours.

Q. Which is the fourth circle?

A. The zodiac; called by Ptolemy the oblique circle; described by the revolutions of the sun and the other planets.

Q. Whence comes the name?

A. From the *animals* which the ancients represented in its belt.

Q. What are they?

A. Aries, etc.

Q. Which of these are opposite, the one to the other?

A. Aries to Libra, Taurus to Scorpio, Gemini to Sagittarius, Cancer to Capricornus, Leo to Aquarius, and Virgo to Pisces.

Q. To what use is the zodiac applied?

A. We determine both longitude and latitude by it; and it is the pathway of the planets, whose revolutions measure times and seasons. The sun travels over its course in a year, which is not far from the space of three hundred and sixty-five days and six hours; and the moon runs completely round it in a month, or twenty-seven days and eight hours, etc. In conclusion, the examiner spoke as follows: "Not to detain the audience longer, I feel satisfied that you are familiar with all other things which have been given to your class to study, and I, therefore, willingly accord to you the palm of victory."

The foregoing description will serve to denote the character of the Strasburg Gymnasium. We will now consider the College, with which it was connected.

(To be continued.)

Sacrobusto, whose treatise "on the Sphere" Sturm employed as a text-book. "There are two horizons; the right and the oblique. Those have a right horizon and a right sphere whose zenith is in the equinoctial; because their horizon is a circle passing through the poles, cutting the equinoctial at right spherical angles; whence, their horizon is called *right*, and their sphere *right*. Those have an oblique horizon with whom the pole is situated above their horizon; and, because their horizon intersects the equinoctial at oblique angles, their horizon is called *obliqus*, and their sphere *oblique*.

* We find this more intelligibly expressed in Sacrobusto, as follows: "It is called the equinoctial because, when the sun crosses it, as it does twice in the year, the days and nights are equal over the whole world; whence, it is called the *equator* of the day and the night.

X. THE SCHOOL AND THE TEACHER IN LITERATURE.

THOMAS HOOD. 1798—1845.

THOMAS HOOD, the son of a bookseller, was born in London, in 1798. He entered the counting-house of a Russian merchant as clerk,—which he left on account of his health, for the business of engraving, but in 1821, became sub-editor of the London Magazine, and afterward was an author, by profession, till his death in 1845. His "Whims and Oddities," "Comic Almanac," &c., have established his reputation for wit and comic power, and his "Song of a Shirt," "Eugene Aram's Dream," &c., indicate the possession of more serious and higher capacities.

His "*Irish Schoolmaster*," "The *Schoolmaster Abroad*," "The *Schoolmaster's Motto*," abound in whimsical allusions to the peculiarities of Irish and English schools and the teachers of our day—greatly exaggerated, we would fain believe.

THE IRISH SCHOOLMASTER.

ALACK! 'tis melancholy theme to think
How Learning doth in rugged states abide,
And, like her bashful owl, obscurely blink,
In pensive glooms and corners, scarcely spied;
Not, as in Founders' Halls and domes of pride,
Served with grave homage, like a tragic queen,
But with one lonely priest compell'd to hide,
In midst of foggy moors and mosses green,
In that clay cabin hight the College of Kilreen!

This College looketh South and West alsoe,
Because it hath a cast in windows twain;
Crazy and crack'd they be, and wind doth blow
Thorough transparent holes in every pane,
Which Dan, with many paines, makes whole again,
With nether garments, which his thrift doth teach
To stand for glass, like pronouns, and when rain
Stormeth, he puts, "once more unto the breach,"
Outside and in, tho' broke, yet so he mendeth each.

And in the midst a little door there is,
Whereon a board that doth congratulate
With painted letters, red as blood I wis,
Thus written,
"CHILDREN TAKEN IN TO BATE:"
And oft, indeed, the inward of that gate,
Most ventriloque, doth utter tender squeak,

And moans of infants that bemoan their fate,
In midst of sounds of Latin, French, and Greek,
Which, all i 'the Irish tongue, he teacheth them to speak.

For some are meant to right illegal wrongs,
And some for Doctors of Divinitie,
Whom he doth teach to murder the dead tongues,
And soe win academical degree;
But some are bred for service of the sea,
Howbeit, their store of learning is but small,
For mickle waste he counteth it would be
To stock a head with bookish wares at all,
Only to be knock'd off by ruthless cannon ball.

Six babes he sways,—some little and some big,
Divided into classes six;—alsoe,
He keeps a parlour boarder of a pig,
That in the College fareth to and fro,
And pickoth up the urchins' crumbs below,
And eke the learned rudiments they scan,
And thus his A, B, C, doth wisely know,—
Hereafter to be shown in caravan,
And raise the wonderment of many a learned man.

Alsoe, he schools for some tame familiar fowls,
Whereof, above his head, some two or three
Sit darkly squatting, like Minerva's owls,
But on the branches of no living tree,
And overlook the learned family;
While, sometimes, Partlet, from her gloomy perch,
Drops feather on the nose of Dominie,
Meanwhile with serious eye, he makes research
In leaves of that sour tree of knowledge—now a birch.

No chair he hath, the awful Pedagogue,
Such as would magisterial hams imbed,
But sitteth lowly on a beechen log,
Secure in high authority and dread;
Large, as a dome for Learning, seems his head,
And, like Apollo's, all beset with rays,
Because his locks are so unkempt and red,
And stand abroad in many several ways;—
No laurel crown he wears, howbeit his cap is baize.

And, underneath, a pair of shaggy brows
O'erhang as many eyes of gizzard hue,
That inward giblet of a fowl, which shows
A mongrel tint, that is ne brown ne blue;
His nose,—it is a coral to the view;
Well nourish'd with Pierian Potheen,—
For much he loves his native mountain dew;—
But to depict the dye would lack, I ween,
A bottle-red, in terms, as well as bottle-green.

As for his coat, 'tis such a jerkin short
As Spenser had, ere he composed his Tales;
But underneath he had no vest, nor aught.

So that the wind his airy breast assails;
Below, he wears the nether garb of males,
Of crimson plush, but non-plushed at the knee;—
Thence further down the native red prevails,
Of his own naked fleecy hosierie:—
Two sandals, without soles, complete his cap-a-pee.

Nathless, for dignity, he now doth lap
His function in a magisterial gown,
That shows more countries in it than a map,—
Blue tinct, and red and green, and russet brown,
Besides some blots, standing for country-town;
And eke some rents, for streams and rivers wide;
But, sometimes, bashful when he looks adown,
He turns the garment of the other side,
Hopeful that so the holes may never be espied!

And soe he sits, amidst the little pack,
That look for shady or for sunny noon,
Within his visage, like an almanack,—
His quiet smile fortelling gracious boon:
But when his mouth droops down, like rainy moon,
With horrid chill each little heart unwarms,
Knowing, that infant show'rs will follow soon,
And with forebodings of near wrath and storms
They sit, like timid hares, all trembling on their forms.

Ah! luckless wight, who can not then repeat
"Corduroy Colloquy,"—or "Ki, Kœ, Kod,"—
Full soon his tears shall make his turfy seat
More sodden, tho' already made of sod,
For Dan shall whip him with the word of God,—
Severe by rule, and not by nature mild,
He never spoils the child and spares the rod,
But spoils the rod and never spares the child,
And soe with holy rule deems he is reconcil'd.

But, surely, the just sky will never wink
At men who take delight in childish throe,
And stripe the nether-urchin like a pink
Or tender hyacinth, inscribed with woe;
Such bloody Pedagogues, when they shall know,
By useless birches, that forlorn recess,
Which is no holiday, in Pit below,
Will hell not seem design'd for their distress,—
A melancholy place that is all bottomlesse?

Yet would the Muse not chide the wholesome use
Of needful discipline, in due degree.
Devoid of sway, what wrongs will time produce,
Whene'er the twig untrained grows up a tree,
This shall a Carder; that a Whiteboy be,
Ferocious leaders of atrocious bands,
And Learning's help be used for infamie,
By lawless clerks, that, with their bloody hands,
In murder'd English write Rock's murderous commands

But ah! what shrilly cry doth now alarm
The sooty fowls that dozed upon the beam,
All sudden fluttering from the brandish'd arm,
And cackling chorus with the human scream,
Meanwhile, the scourge plies that unkindly seam
In Phelim's brogues, which bares his naked skin,
Like traitor gap in warlike fort, I deem,
That falsely let the fierce besieger in,
Nor seeks the Pedagogue by other course to win.

No parent dear he hath to heed his cries;—
Alas! his parent dear is far aloof,
And deep in Seven-Dial cellar lies,
Killed by kind cudgel-play, or gin of proof,
Or climbeth, catwise, on some London roof,
Singing, perchance, a lay of Erin's Isle,
Or, whilst he labors, weaves a fancy-woof,
Dreaming he sees his home,—his Phelim smile;—
Ah me! that luckless imp, who weepeth all the while!

Ah! who can paint that hard and heavy time,
When first the scholar lists in Learning's train,
And mounts her rugged steep, enforc'd to climb,
Like sooty imp, by sharp posterior pain,
From bloody twig, and eke that Indian cane,
Wherein, alas! no sugar'd juices dwell,
For this, the while one stripling's sluices drain,
Another weepeth over childblains fell,
Always upon the heel, yet never to be well!

Anon a third, for this delicious root,
Late ravish'd from his tooth by elder chit,
So soon is human violence afoot,
So hardly is the harmless bitter bit!
Meanwhile, the tyrant, with untimely wit
And mouthing face, derides the small one's moan,
Who, all lamenting for his loss, doth sit,
Alack,—mischance comes seldomtimes alone,
But aye the worried dog must rue more curs than one.

For lo! the Pedagogue, with sudden drub,
Smites his scald-head, that is already sore,—
Superfluous wound,—such is Misfortune's rub!
Who straight makes answer with redoubled roar,
And sheds salt tears twice faster than before,
That still, with backward fist, he strives to dry;
Washing, with brackish moisture, o'er and o'er,
His muddy cheek, that grows more foul thereby,
Till all his rainy face looks grim as rainy sky.

So Dan, by dint of noise, obtains a peace,
And with his natural untender knack,
By new distress, bids former grievance cease,
Like tears dried up with rugged huckaback,
That sets the mournful visage all awrack;
Yet soon the childish countenance will shine

Even as thorough storms the soonest slack,
For grief and beef in adverse ways incline,
This keeps, and that decays, when duly soaked in brine.

Now all is hushed, and, with a look profound,
The Dominie lays ope the learned page;
(So be it called) although he doth expound
Without a book, both Greek and Latin sage;
Now telleth he of Rome's rude infant age,
How Romulus was bred in savage wood,
By wet-nurse wolf, devoid of wolfish rage;
And laid foundation-stone of walls of mud,
But watered it, alas! with warm fraternal blood.

Anon, he turns to that Homeric war,
How Troy was sieged like Londonderry town;
And stout Achilles, at his jaunting-car,
Dragged mighty Hector with a bloody crown:
And eke the bard, that sung of their renown.
In garb of Greece, most beggar-like and torn,
He paints, with colly, wand'ring up and down.
Because, at once, in seven cities born;
And so, of parish rights, was all his days, forlorn,

Anon, through old Mythology he goes,
Of gods defunct, and all their pedigrees,
But shuns their scandalous amours, and shows
How Plato wise, and clear-ey'd Socrates,
Confess'd not to those heathen hes and shes;
But thro' the clouds of the Olympic cope
Beheld St. Peter, with his holy keys,
And own'd their love was naught, and bow'd to Pope,
Whilst all their purblind race in Pagan mist did groupe!

From such quaint themes he turns, at last aside,
To new philosophies, that still are green,
And shows what railroads have been track'd, to guide
The wheels of great political machine;
If English corn should grow abroad, I ween,
And gold be made of gold, or paper sheet;
How many pigs be born, to each spalpeen;
And, ah! how man shall thrive beyond his meat,—
With twenty souls alive, to one square sod of peat!

Here, he makes end; and all the fry of youth,
That stood around with serious look intense,
Close up again their gaping eyes and mouth,
Which they had opened to his eloquence,
As if their hearing were a three-fold sense.
But now the current of his words is done,
And whether any fruits shall spring from thence,
In future time, with any mother's son!
It is a thing, God wot! that can be told by none.

Now by the creeping shadows of the noon,
The hour is come to lay aside their lore;
The cheerful pedagogue perceives it soon,

And cries, "Begone!" unto the imps,—and four
Snatch their two hats and struggle for the door,
Like ardent spirits vented from a cask,
All blythe and boisterous,—but leave two more,
With Reading made Uneasy for a task,
To weep, whilst all their mates in merry sunshine bask,

Like sportive Elfins, on the verdent sod,
With tender moss so sleekly overgrown,
That doth not hurt, but kiss the sole unshod,
So soothly kind is Erin to her own!
And one, at Hare and Hound, plays all alone,—
For Phelim's gone to tend his step-dame's cow;
Ah! Phelim's step-dame is a canker'd crone!
Whilst other twain play at an Irish row,
And, with shillelah small, break one another's brow!

But careful Dominie, with ceaseless thrift;
Now changeth ferula for rural hoe;
But, first of all, with tender hand doth shift
His college gown, because of solar glow,
And hangs it on a bush, to scare the crow:
Meanwhile, he plants in earth the dappled bean,
Or trains the young potatoes all a-row,
Or plucks the fragrant leek for pottage green,
With that crisp curly herb, call'd Kale in Aberdeen.

And so he wisely spends the fruitful hours,
Linked each to each by labour, like a bee;
Or rules in Learning's hall, or trims her bow'rs;—
Would there were many more such wights as he,
To sway each capital academie
Of Cam and Isis, for alack! at each
There dwells, I wot, some dronish Dominie,
That does no garden work, nor yet doth teach,
But wears a floury head, and talks in flow'ry speech!

THE NEW ENGLAND COUNTRY SCHOOL.

THE following sketch of a Country School in New England—"*as it was*," is copied from the "*Columbian Muse*, a selection of American Poetry, from various authors—published by Matthew Carey, Philadelphia, 1794,"—where it is credited to the *New Hampshire Spy*.

THE COUNTRY SCHOOL

"PUT to the door—the school's begun—
Stand in your places every one,—
Attend,———"
* * * *
"Read in the bible,—tell the place—"
"Job twentieth and the seventeenth verse—
"Caleb, begin." "And—he—shall—suck—
Sir,—Moses got a pin and stuck———"
"Silence,—stop Caleb—Moses! here!"
"What's this complaint?" "I didn't, Sir,"—
"Hold up your hand,—What is't a pin?"
"O dear, I won't do so agin."
"Read on." "The increase of his b—b—horse—"
"Hold: H, O, U, S, E, spells house."
"Sir, what's this word? for I can't tell it."
"Can't you indeed! Why spell it." "Spell it."
"Begin yourself, I say." "Who, I?"
"Yes, try. Sure you can spell it." "Try."
"Go, take your seats and primers, go,
You sha'n't abuse the bible so."

"Will pray Sir Master mend my pen?"
"Say, Master, that's enough. Here Ben,
Is this your copy?" "Can't you tell?"
"Set all your letters parallel."
"I've done my sum—'tis just a groat—"
"Let's see it." "Master, m' I g' out?
"Yes,—bring some wood in—What's that noise?"
"It isn't I, Sir, it's them boys."

"Come Billy, read—What's that?" "That's A—"
"Sir, Jim has snatch'd my rule away—"
"Return it, James. Here, rule with this—
Billy, read on,"—"That's crooked S."
"Read in the Spelling-book—Begin."
"The boys are out"—"Then call them in—"
"My nose bleeds, mayn't I get some ice,
And hold it in my breeches?"—"Yes."
"John, keep your seat." "My sum is more—"
"Then do't again—Divide by four,
By twelve, and twenty—Mind the rule.
Now speak, Manassah, and spell tool."
"I can't"—"Well try"—"T, W, L."
"Not wash'd your hands yet, booby, ha?
You had your orders yesterday.
Give me the ferrule, hold your hand."
"Oh! Oh!" "There,—mind my next command."

"The grammar read. Tell where the place is."
"C sounds like K in cat and cates."
"My book is torn." "The next." "Here not—"
"E final makes it long—say note.
What are the steps and marks, Susannah?"
"Small points, Sir."—"And how many, Hannah?"
"Four, Sir." "How many, George? You look:"
"Here's more than fifty in my book."
"How's this? Just come, Sam?" "Why I've been—"
"Who knocks?" "I don't know, Sir." "Come in."
"Your most obedient, Sir?" "And yours."
"Sit down, Sir." "Sam, put to the doors."
"What do you bring to tell that's new?"
"Nothing, that's either strange or true.
What a prodigious school! I'm sure
You've got a hundred here, or more.
A word, Sir, if you please." "I will—
You girls, till I come in be still."

"Come, we can dance to night—so you
Dismiss your brain distracting crew,
And come—For all the girls are there.
We'll have a fiddle and a player."
"Well, mind and have the sleigh-bells sent,
I'll soon dismiss my regiment."

"Silence! The second class must read
As quick as possible—proceed.
Not found your book yet? Stand—be fix'd—
The next read, stop—the next—the next.
You need not read again, 'tis well."
"Come Tom and Dick, chuse sides to spell.
"Will this word do?" "Yes, Tom spell dunce.
Sit still there all you little ones."
"I've got a word," "Well, name it." "Gizzard."
"You spell it Sampson." "G, I, Z."
"Spell conscience, Jack." "K, O, N,-
S, H, U, N, T, S." "Well done!"
"Put out the next"—"mine is folks."
"Tim, spell it"—"P, H, O, U, X."
"O shocking! Have you all try'd?" "No."
"Say Master, but no matter, go—
Lay by your books—and you, Josiah,
Help Jed to make the morning fire."

XI. ART.—ITS IMPORTANCE AS A BRANCH OF EDUCATION.

BY M. A. DWIGHT.

The teacher who gives instruction in the art of drawing, will find that no real advance is made in skill of hand, until the curve line in all its variations is mastered. This includes not only the mathematical forms, such as the circle and semi-circle, but the infinite variations that are required to express the muscles called in action by the impulses of nature, which demands the greatest manual skill. Without this skill, anatomical knowledge is of no avail to the draughtsman, and in acquiring it, the eye becomes trained to observe the nicest variations of line, as the ear, in the study of the musical instrument, learns to discriminate the slightest possible variation in sound. Then the mind and hand work in unison, and the artist does not stop in his progress to consider the rudiments that he has thus made his own, any more than the writer to consult his grammar and dictionary. After each has thrown off his production, so to speak, he may in the correction of it, refer to the rules that govern his art, and which are common to all cultivated minds. Here the author has the advantage of the artist, for if there are more to give just criticism in literature, and who will not spare him, there are also more to appreciate fine writing; and the certainty that he will encounter this criticism, makes the author careful to inform himself of all that belongs to good writing, and incites him to aim at the highest standard of merit. The artist, on the contrary, meets no such tribunal. The judgment of the public in regard to his productions has no standard; for the people to whom his work is presented, have never been taught what constitutes the merits of a picture.

The question may be asked, how shall they learn this? Just as all men learn to judge the works of the scholar and the poet,—when by a long course of training they have mastered the same elements, and the same rules and principles that govern the productions of the most gifted, and have acquired the power to discriminate between the true and the false, the intrinsic and the meretricious.

The student who would acquire skill as a writer, first learns orthography, then grammar; then the various elements of composition in a gradual course of practice; and finally, produces an original theme according to the established rules of the art of writing; and any

teacher will tell him, that it is in this way, and this only, that he will become a successful author. So the artist must first learn the curve, then the combination of curves according to the laws of harmony, then the elements of composition, which, if he would so understand as to appreciate the productions of others, he must practice more or less himself. In no other way can he acquire skill to excel in the practice of the arts, or qualify himself to judge the merits of works of art. No student, whatever his object in the pursuit of the study, should stop short of composition. It does not follow that every one who is taught the art of composing in written language will become an author; but the education he has received, enables him to appreciate and enjoy the beauties of literature. So education in art enables one to enjoy all its productions, and affords the unspeakable pleasure of understanding the character of pictures, statues, etc., which bear the impress of great minds that have chosen the language of art as their medium of expression, and in which they have embodied conceptions as great, and beauties of sentiment as exquisite as those of any poet that ever put pen to paper, or sang to the music of his harp. Expressions, that to those ignorant of art, are, alas! a dead letter.

The next question is, where shall we find teachers who are qualified to impart the requisite instruction? And we can only answer, where? The Schools of Design should have prepared them; but they have signally failed in this department which ought to have been a prominent object of those institutions, and efficiently accomplished. I have known scholars who attended the schools in Boston and New York for the purpose of becoming qualified for teachers, express their bitter disappointment in having failed to obtain any true instruction, or any knowledge of art that was improving to themselves, or that could be imparted to others.

The training of teachers in this department as well as that for every other branch of education, should be in the care of educators. "A committee of taste," or a "committee of benevolence," can not understand, much less provide, for this great want. No institutions can do so much toward it as the State Normal Schools, and with them, the responsibility rests. The committee of a Normal School are provided with funds, and the Principal to whom they entrust its direction, has it in his power to regulate the studies required, so that all introduced shall have their due share of time and attention. The Principal of a private school, on the contrary, must be governed by the wishes of the various parents and guardians by whom he is employed; who, as a general rule, are decided by the scholars in the

choice of studies, except in regard to music and French, which in all cases, ability out of the question, are considered as indispensable acquirements.

It may be said in reply, that drawing is already taught in the Normal Schools. Yes—mechanical copying. This I have seen, when the teachers worked faithfully according to their ability; taught quite as well as they were taught themselves, perhaps better. But, let me ask, is it well enough, when it is not the best way? When neither teacher nor scholar can apply a rule or explain a principle of art? When instruction in this department falls so far below the standard of teaching in every other? And with the power controlled by the committee of the Normal Schools, are they doing justice to the scholars, when this department is neglected, and the place of teacher badly filled?

Hon. Henry Barnard, in his work entitled, "Education in Europe," shows the importance attached to the study of drawing by the educated, and the educators of that country; and if it is so important to them, is it not equally important to us who aim at the same standard of attainments, and if possible, higher? Those who have given attention to the subject, can see and understand the advantage that foreign artizans have over our own, from the training of eye and hand that the study and practice of drawing has given them. In scientific research too, they have the advantage; for in Europe, every department of scientific study has its scientific teacher of drawing, and without the same advantage, can we compete with them in progress? The great mistake with us has been in regarding the art of drawing as an isolated pursuit, and of no practical value; as an accomplishment that only the few could acquire, the only end and aim of which is, to make pictures to be purchased at great prices by those whose wealth enables them to indulge in the ornamental; mistakes that have naturally arisen from the profound and universal ignorance of the subject.

Another mistake is, in postponing the commencement of the study until the scholar has passed the age when thorough practice in the rudiments can be required, and perfect ease in handling the pencil can be secured. The child who is expected to excel in playing the piano, is required to commence very young, and pursue the study with diligence for a term of eight or ten years, at least, before the parents' ambition is satisfied with the display of skill; when the same child is, in the finishing year of school education, placed under a drawing teacher with the vain and unreasonable expectation that the result of six months' effort will be "a picture to carry home." If

at this age, an attempt is made to give any thing like a thorough training, the scholar rebels, the parents are dissatisfied, and the teacher is pronounced incompetent, and ill-qualified for his place. Realizing this, he will either leave it in disgust, or pander to the false ambition of fond parents, deceiving them with a performance of his own, which they, in their ignorance, receive as the work of the scholar. The result is, parental pride and vanity are gratified in this exhibition of skill accredited to their daughter's account, she is flattered by the encomiums it calls forth, and to their friends, who are equally well informed on the subject of art and its requirements, the teacher is duly recommended as eminently worthy of patronage.

To overcome this ignorance of art, and the evil is not a light one, there is but one way, and that is, to give this branch of study its proper rank in schools, beginning with the State Normal. No change can be effected in public opinion, until the public are as well educated in this department of scientific skill as in every other. To accomplish it will be a work of time, for to secure complete success, we must begin with the young, and train them in sure and gradual progress, until they have mastered both the principles and practice of art.

The first elementary lesson should be in the handling of the pencil in preliminary exercises, that shall enable the scholar to commence with regular lessons successfully. In the delineation of his lines three things are required, *viz.*: accuracy, force, and freedom,—all of which must be constantly inculcated, till, in the imitation of any object or group of objects, the student has acquired sufficient skill to give the designed effect, without the aid of his teacher. He may then commence with the practice of light and shade, which should also be studied on the cast, accompanied with instruction in the principles that govern the distribution of light and shade upon a single object, or a group of objects. If the scholar is advanced too hastily, the disadvantage is never overcome; every elementary step must be sure and of course gradual. Hence the importance of commencing young, that there may be time enough. First let form be mastered; then light and shade; then color; then composition; for this system, whatever may be the natural ability, is the only royal road to excellence.

It has been already stated, that no student of drawing should stop short of composition; and to acquire the ability to compose with ease and skill, the practice from the commencement should be, drawing from the cast, rather than from the paper model; because, in the *first* place, with this method of study and practice, the teacher can lead his scholar on from step to step from the outset, until he is prepared to draw from life. In the *second* place, by commencing with

the cast, he draws with more confidence and independence ever after. On the contrary, commencing with the paper models gives a feeling of timidity with regard to drawing from objects that is not readily overcome. In the *third* place, in making his own delineation of an object, instead of a mechanical copy of a drawing placed before him, the scholar feels that he is really producing something new, which increases his interest in the study, and is a constant stimulus to improvement. If he has any genuine taste for art, he may in this way, be gradually advanced until he has thoroughly mastered the art of composition, when he is prepared to design according to the ability with which his Creator has endowed him.

By commencing with the cast, is not meant that of the human figure, which is too difficult for a beginner. Architectural ornaments such as are used in house decorations, furnish a variety of simple curves, as well as combinations of curves, that afford excellent studies for the first lessons. These should be selected with care, and none adopted for the purpose that are false in taste and skill, because the scholar should be trained from the beginning to learn the laws of unity and harmony, which are indispensable to the composition of every subject however limited. The difference in the progress made by the scholar in using a series of good and correct models, or those that are poor and faulty is incalculable. For this reason, the selection of models should never be a question between scholar and teacher, or parent and teacher, for art is governed by established rules as simple, and by scientific laws as arbitrary as those that belong to music or to geometry. In other studies pursued, no difficulty of this kind occurs, for the teachers employed in the various departments are supposed to be better qualified to judge than the scholars. But, alas! for the teacher of drawing. In the first place, all children are allowed to say whether they wish to learn to draw, and their own inclination decides the question. This study being the only one in regard to which they are left free to chose, shows them, at once, that no importance is attached to it. If they object on the plea of having no taste for it, no one regards it as evidence of a deficiency in natural gifts; but what parent ever allowed a child to say, that they had no taste for music; ear or no ear, taste or no taste, the master is summoned to make an accomplished musician of the subject given him; and ear or no ear, taste or no tase, the child is made to work with indefatigable diligence, and the lessons are steadily pursued, intermingled with alternate tears and remonstrances, which avail nothing with the parent, for musical skill commands a little coveted *éclat*. This the scholar does not always secure, but as a reward for the application made, her individual pleasure in after life is greatly enhanced by the

gratification of a cultivated taste, in the frequent opportunities afforded of listening to fine music.

In the next place, if latent talent is developed with the growth, the years that should have been devoted to the acquirement of elementary knowledge and skill in this, as well as in other studies, have passed by. But, during that period, the eye and taste have become somewhat cultivated, and if the art of drawing is then attempted, the very slow progress made, combined with the feeling of disgust at the puerile effort of skill, will discourage all who have not more than an ordinary share of ability.

Before closing, I would beg leave earnestly to recommend, that drawing should be taught scientifically in every school where it is taught at all, more particularly in the State Normal, the ostensible object of which is, to prepare teachers for all departments of instruction. Our people have yet to learn that the rules of art are founded in science, and that drawing, to be taught successfully and usefully, must be taught scientifically. The author of an exceedingly interesting and valuable article published in the "American Journal of Education," entitled "Science and Scientific Schools," (*Vol.* II., p. 354,) in speaking of the ancients, says, "they had, it is true, built magnificent temples. But, the taste of the architect, and that of the statuary, or poet, is simply an emanation from the divine breath within man, and is cultivated by contemplation, and only surface contact with nature." Will the writer pardon the liberty taken in commending to his attention the science of art? He will find, on understanding it, that magnificent temples, and beautiful statuary, as well as all works of art, are the result of study and scientific skill, and never in any instance, designed and accomplised simply by what he considers inspiration, and mere "surface contact with nature."

In the same article, (p. 369,) the writer speaks of the result of the Crystal Palace Exhibition in London, when the English, finding by comparing the productions there exhibited with their own, that the manufactures of other countries surpassed theirs in the display of artistic skill; the skill which of all others gives the greatest advantage in the great marts of the world, for the artistic will eclipse the mechanical, even in its greatest perfection. And what but scientific art gives the French artizan the advantage over all others, and in all markets commands the preference for their productions?

In the comprehensive plan given in the article referred to, which embraces nothing superfluous to a thorough education, "drawing and the history and criticism of the art" are included. If the art of drawing is worthy of a place in the list of studies pursued, is it not worthy of the same thorough attention as the rest? And, if art is

not to be studied scientifically in a scientific school, why should it be introduced at all? We heartily sympathize in the hopes and ambition expressed by the writer for the New Haven Scientific School, and at the same time beg leave to say that when properly pursued, such is the influence of this study upon the whole mental culture, that if other scientific schools will give prominence to the study of art, "Yale, like other shaded plants, will begin to dwindle, and her laurels fade."

It is true, as he says, our young men go to Germany for the purpose of acquiring a higher mental cultivation than the facilities afforded them in their native land enables them to gain at home; and what is it that marks so decided a difference between the advantages afforded them in European institutions, and those in the United States? Is there any point of difference so material in the two systems, as that of art culture, which is there considered as of first importance, and here entirely overlooked? In Germany, no student of Greek is expected to understand the ancient classics, until he has attended lectures upon Greek art, and become familiar with the antiquities collected in their rich museums; and that he may understand these lectures, he is first taught the rudiments of art at school with elementary practice.

In all pursuits, we Americans look at the practical and the profitable, and in examining the statistics of art, we find that in Apelles' time, when every well educated Greek was well educated in art, pictures brought the highest prices to living artists; for then Apelles sold his picture of Alexander grasping the thunderbolt, which was deposited in the temple of Diana at Ephesus, for two hundred and eleven thousand dollars. Corréggio, who died in 1534, executed his "Saint Jerome" for about two thousand dollars. In 1749, the king of Portugal offered ninety thousand dollars for it. When the French had possesion of Pama, the duke vainly offered two hundred thousand dollars to redeem the same picture from being sent to Paris. Benjamin West, who in his day was honored in England as being at the head of his profession, received in 1817, four thousand dollars for his "Annunciation," then considered one of his best pictures. In 1840, the same picture was sold by auction for fifty dollars.

West undoubtedly possessed great natural gifts, and, by diligent application and study, found out for himself much that belonged to the practice of art. Still, he never overcame the disadvantage under which he labored from the want of early instruction, and never attained the excellence that he would have done, had he received thorough training from a master. Canova said of him, "he *groups*, he does not *compose*." In his time art was but little cultivated in England, and comparatively few then went to the continent; where, in

visiting the galleries, the taste becomes cultivated, and the eye gains the power of discrimination. During the present century, many have availed themselves of this great advantage; hence the different estimate made of the pecuniary value of West's pictures in his own time and the present; a fact worthy of note by all who claim for art, as for manufactures, a certain and available profit.

Many who go abroad for the purpose of seeing ancient works of art, are incapable of appreciating them, because in their education this branch of study has been entirely neglected; still, they claim to be judges, and are ambitious to procure fine pictures and statuary, the possession of which will prove their superior taste and judgment. In this they tacitly acknowledge the great importance attached to the subject, and at the same time unwittingly betray their ignorance, which is the necessary consequence of our having no schools of instruction. Our government pay great prices to native artists for their pictures, and thus by voluntary patronage distinguish them above their fellow countrymen; yet no importance is attached to a school of art. The great inventive power of our people is freely admitted by those of other nations with whom we come in competition, but our productions are less finished than theirs, because the inventors have received no artistic training, and of course their work suffers in the comparison.

Impressed with the vague idea that in the pursuit of art there is some radical defect, one says, "all that our artists need to enable them to compete with those of Europe, is a liberal patronage." Another says, "if we would have art succeed in America, we must have large public galleries, thrown open to the people." A third says, "artists can never do any thing here, they must go to Italy, the land of art." But the true question is, shall art be taught to our people scientifically, and with the same care as other studies pursued? or shall it be condemned as utterly useless, and therefore, unworthy the attention of educationists?

On this point let our educationists decide, and act conscientiously for the good of the young who are to perpetuate our Republic, and protect its future interests, and for whom they have in all other branches of education acted so judiciously and energetically. Let not those who are to follow after them, and on whom the same duties must devolve for the interests of their successors, while grateful that so much was done, mingle their gratitude and praise with reproach and regret that in the education given them, one valuable pursuit was neglected, one important thing omitted, a study which of all others, opens the way to profit, to honor, and to distinction, both individual and national.

XII. CULTIVATION OF THE REFLECTIVE FACULTIES.

Lectures addressed to Young Teachers,

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INTRODUCTORY OBSERVATIONS.—In the preceding lectures of this series, we were occupied with the consideration of the *perceptive* and the *expressive* faculties, with a view to the plan and purposes of education. Following the historical order of development in the different classes in which the mental powers may, for such purposes, be grouped, we enter now on the study of the various modes of intellectual action which may be classed under the denomination of

REFLECTIVE FACULTIES.

Here we are met anew by a difficulty inherent in our native language, in the paucity and indefiniteness of the terms which it employs to designate the phenomena of mind. The vagueness of the phrase "reflective faculties," is a serious impediment to clearness and distinctness of conception, as regards any attempt at exact definition or satisfactory classification of intellectual acts or conditions. The term "reflective," however, if we resort once more to the serviceable aid of etymology, as a key to the interpretation of language, will prove strikingly suggestive of meaning; and, by its figurative force and peculiar significance, will atone, to some extent, for its deficiency in philosophic precision.

The term "perceptive," (literally, *taking through*,) suggests the intellectual condition in which the mind is in the act of *taking*, receiving, or forming, ideas *through* the medium of the senses. The term "expression" implies a state in which the mind is undergoing a process of *pressing*, or *being pressed*, *from within outward*. But the term "reflection," (*bending back*,) suggests, figuratively, that state or act of the mind in which it reflects, repeats, or *gives back*, *inwardly*, the images impressed upon itself,—the effects of which it is conscious, —whether produced from without or from within, whether occasioned by perception, imagination, conception, or emotion. In this condition is is implied that attention turns inward, and dwells, more or less consciously, on its internal subjects, rather than on the objects by which they may have been occasioned.

The history,—so to term it,—of intellectual action implied in the application of the word "reflective," represents the mind, as in the act of going forth from its inner self, meeting the forms of the external world, and, by the impression which these produce upon it, "reflecting," (turning back or inward,) upon itself, to contemplate and deliberately consider what it there consciously beholds. Nor does the term lose aught of its significance, when it is applied to the inward action of the mind on the phenomena of its own consciousness, when the forms of imagination, or even of pure thought itself, become so forcible as to attract and absorb the attention. The figurative word then represents the mind as turning back upon itself, to look inward, so as to ascertain and define, or consider more fully, the objects of its own creation, and to follow the trains of thought which these suggest. In either of the supposed cases,—whether the objective or the subjective world furnish the data of thought,—the result is an ultimate inward movement, which, although it may, in given instances, lead to the anticipation of external action, as a consequence, is, so far, a purely mental condition, sanctioning the popular usage which applies the term "reflection" to all modes of intellectual action which are of a strictly internal character.

Recognizing this fact of language, and pursuing our analysis of the human faculties as subjects of disciplinary culture, we now, therefore, change our field of observation, and pass from the outward spheres of perceptive observation and expressive communication to the silent, inner, invisible, spiritual, and purely intellectual region of *Thought*. We now contemplate man as made in the image of his Maker, as an intelligent and rational being; and we trace the working of those powers which ally him to "things unseen and eternal."

Following, as before, the method of observing (1,) the *forms* of mental action grouped under a given classification; (2,) their *actuating principle*, or motive force; (3,) their natural and habitual *tendency;* (4,) the *results* of their action; and (5,) the *educational processes* consequently required for their development and discipline, we proceed to a summary

(I.) Enumeration of the Reflective Faculties.

Memory, Conception, Consciousness, Reason, Understanding, Judgment.

Explanatory Remark.—This classification is presented not as one philosophically complete or exhaustive, but merely as a suggestive outline, for educational purposes. It is intentionally limited to the chief of those forms of mental action which may be regarded as acts or powers not only strictly interior, but *purely intellectual*, as contradis-

tinguished from those which are concerned with the external objects and facts of *perception*, from those which consist in inward or outward movements of *feeling*, and from those which are conversant with the ideal forms and creations of the *imagination*. A more extensive classification, including the subdivisions and subordinate details of reflective intellection, will necessarily present itself at a later stage of our analysis, when we come to the consideration of the various forms of exercise to which this group of faculties is subjected in the processes of education.

(1.) MEMORY: *the Basis of Reflective Power.*—This faculty naturally claims our first attention, when we contemplate man as a being endowed with the power of reflective intelligence. It is this faculty which enables him to take the first step from the exterior and objective world into the interior and subjective. Its exercise empowers him, even in the absence of the objects of sense, to retain or to recall, for indefinite periods, and at indefinite intervals, the ideas which he derived from them. He can thus, at pleasure, dispense with the actual presence of external objects, and yet, by dwelling on them mentally, after he has withdrawn from them outwardly, pursue the trains of thought to which they give rise. As a result, he thus acquires a more intimate knowledge of their relations to his own interior being, and converts the pabulum of intelligence, furnished in the data of the outward world, into the pure elements of intellectual sustenance. The activity of this power is, in fact, the measure of his growth in mental stature and strength. It is the condition of all intelligent progress, whether we regard memory as the grand receptacle and depository of all those elements of knowledge which are at once the rudiments of intellectual life, the springs mental of action, and the material of thought, or as the chain which links the past to the present, and retains every acquisition as a foothold for the next step forward in the processes of reason and the investigation of truth.

Remembrance.—The faculty of memory, even in its comparatively passive and quiescent form of mere retention, or *remembrance*, gives man the power of holding with a firm grasp all the treasures which observation enables him to accumulate from without, and to carry them with him into that internal region of thought where they are to be assimilated to his own mental being, and become component parts of it, in transfigured forms of living power and beauty. Not only so: but even the involuntary susceptibility of this vast capacity preserves in the mind the imprint of every passing thought, every form of imagination, and every mood of feeling, which has character enough to excite his attention and recall him to himself, in the exercise of consciousness and reflection.

Intellectual and Moral Offices of Memory.—This benign retentive power gives unity to man's intellectual and moral life. It is the sure and steadfast anchor by which he grapples the present to the past, and is saved from the fluctuation and fragmentary tossing of "the ignorant present." In the wide field of culture, memory makes the mind the seed plot and garden ground of all the knowledge which human care and kindness have the skill or the power to drop into it. Fertilized by the genial influences of well directed education, the retentive capacity of memory becomes rich in every precious and noble product of mind by which the intellectual life of the world is nourished and sustained.

But it is as an element of intellectual and moral power in human *character*, that this faculty reveals its chief value. Its very nature and tendency is to constitute man a *reflective* being, by withdrawing him from the influence of a too exclusive regard to the present and the external; by soliciting his attention to the profoundest verities of his own intelligent and immortal being; and by balancing the stern realities of experience against the sometimes fallacious solicitations of hope, or the grave actualities of the past against the doubtful promises of the future. It prompts to *thought*, and leads to security amidst uncertainty and distraction. It invites to reflective *meditation*, by the suggestive materials in which it abounds. It cherishes *contemplation*, by opening to the mind's eye the long vista of the past with its fast-linked trains of scene and incident and action, and the ineffaceable impressions which all these have graven upon the heart. It tends to make man a considerate and thoughtful being, by the faithful monitions which it furnishes to the lips of wisdom warning against the errors of judgment or of will, by reminding of their penalties formerly incurred.

Remembrance saves from the domineering ascendency and absorbing attractions of the sensuous and the transient, by intermingling with the fluidity and evanescence of the present the solidity and permanence of the past. It thus tends to give gravity and weight to character; and if its influence is sometimes a shade too sombre for gayety, it contributes a not undesirable element to the sternness of manhood, as a safeguard to the firmness of will. Its office is, in this respect, a preventive one,—to save man from the instability which the exclusive influence of things present and things outward might induce; and, by attracting him inward to himself, it favors the acquisition of that self-knowledge which is the anchor of his safety.

Recollection.—This term is but another name for the faculty of memory, and merely intimates that the impressions made on the mind

by a given object, scene, or event, may have been, for a time, effaced, or its elements dispersed, by the intervention of other agencies; and that, with or without an effort of the will to that effect, but by the operation of some law of mental association, the idea recurs or returns, as it were, and, perhaps, unexpectedly and suddenly, to the mind. We are then said to "recollect," (*gather again,*) or recall what had, for a season, escaped the retentive hold of memory.

The very abruptness and suddenness of the transition of thought, in such instances, exerts a peculiar power on the reflective action of the mind, and makes it more striking, more impressive, and more effectual. Recollection may thus light up the soul with the instantaneous gleam of a rekindled thought, or plunge it into the depths of a past grief; or it may arrest the will on the very brink of remembered evil. A long train of profound reflections may thus be suggested, which may exert an influence on the character of a whole life.

A mere flash of reflection has sometimes sufficed, by the instant recalling of scenes of childhood's innocent enjoyment, or the injunctions of parental wisdom and love to reinstate conscience on its rightful throne, and bring back the tempted to himself, or to restrain him from the first steps of a career of ruin. A remembered promise, pledging honor and truth, has sometimes risen up as a barrier against an approaching tide of overwhelming guilt. A verse of sacred Scripture, darting across the mind, has checked the hand already stretched out to do the deed of wickedness which no after tears of penitence could have sufficed to wash out.

But not as a *preventive* only does memory thus subserve man's highest interests: its recurring suggestions are not less frequently inspiring *prompters* to every form of virtue. To the dispirited traveler on the pathway of life, it comes, sometimes, as an inspiring angel, with messages of cheering and encouragement drawn from the remembered virtues of the struggling great and good who have gone before. It points him to "their footprints on the sands of time," and bids him "take heart again." It reminds him that his great reliance is not on the outward and the material, but on that "hidden strength" of which our greatest poet speaks so eloquently. The maxim or the motto which the guardian care of the mother or the teacher had engraven as a watchword on the tablet of the heart, in early years, recurs, sometimes, to incite to noble deeds or noble enduring, the man encompassed by difficulties and dangers before which he would otherwise have staggered. The "one, last, best effort, more," which wins the crown of victory, is that, not unfrequently,

which follows the backward glance of memory to the parting scene, and farewell words of a parent's blessing.

Memory as a Subject of Cultivation.—In either form, whether that of retentive remembrance or momentary recollection, memory furnishes the material, and solicits the action, of the whole class of reflective faculties. To the educator, therefore, the judicious cultivation and development of this capacity, in the minds committed to his care, becomes a matter of vital moment, that the impressible memory of the young may be rich in valuable resources, and strong for the aid of every good purpose, sound and healthy in its action, firm in its grasp, and prompt to yield up its acquisitions when in demand for intellectual emergencies.

The true teacher will be careful that this indispensable servant of the mind be not exhausted by overwork, that its strength be not expended on worthless material, that its receptive capacity be not crammed to unhealthful and unprofitable repletion, at the expense of inaction and inanity to all the other capacities of the mind. But of the appropriate modes of exercise for the cultivation of this faculty, we shall have occasion to speak more fully under the head of educational processes.

(2.) Conception: *Etymological Sense of the Word.*—The primitive signification of this term implies that the mind has the power of "taking" (*receiving*, or *forming*,) ideas "with," (*within*,) itself, whether on data furnished from without, and by the alchemy of mind, transmuted into intellectual forms, or on materials found within itself, originating in feeling or in thought, partaking of its own character, and wearing forms purely ideal. In the process of intelligence, *conception* presents itself as the counterpart of *perception*, performing, in the interior world of thought, an office similar to that of the latter in the domain of exterior observation.

Its Proper Acceptation.—The term "conception," in its full and proper acceptation, comprehends the action of the mind in the intelligent contemplation or cognition of any object or subject in the whole range of the ideal world. It applies to the recognition or creation of the forms of imagination and the figures of fancy, not less than to the ideas of pure intellection. In the former relation, it stands connected with the action of the expressive faculties, as discussed in a previous lecture; but it is in the latter sense, as a contemplative and reflective faculty, that we now regard it. In this connection, it approaches, sometimes to the sphere of memory, and draws from that source the materials on which it acts,—whether these were originally external or internal in their origin.

Different Views of this Faculty.—Contemplated in the light last mentioned, the faculty of conception has, by some eminent writers on intellectual philosophy, been considered as identical with *memory;* while, by others, its definite action on forms furnished by *imagination,* has been regarded as identifying it with that faculty. Hence, we read of the "conceptions of memory," and the "conceptions of imagination." A third class of authors treating of intellectual topics, evidently regard conception as simply an act of the understanding.

The unsatisfactory character of popular usage in our own tongue, as regards the application of language to mental phenomena, is strikingly exhibited in the several arbitrary senses in which the term "conception" is used, as suggesting imperfection, dimness, or remoteness in the objects or subjects of contemplation. We can not, therefore, rely on any consentaneous use of nomenclature as a guide to the character or action of the faculty in question. Adverting, however, to the highly suggestive etymological sense of the term "conception," as it has been employed in the metaphysical vocabulary of all nations, for successive ages, we find the susceptive intellect figuratively represented by it as—when in the act of forming ideas—*impregnated,* or fertilized, not only from the various sources of intelligence furnished by the external world of perception and the interior spheres of feeling and imagination, but as possessing a *self-vivifying* power of creating and contemplating an inner world of its own, more or less analogous to that without, though formed of materials purely intellectual and spiritual;—a condition which is exemplified in the exercises of its own conscious intuition, in the sequences of thought, and in the processes of reasoning. Nor is the independent power of this faculty in any case more distinctly perceptible than when, borrowing the congenial aid of reason, it inspires with intelligence, and moulds into symmetry the fluctuating forms of imagination which hover in the ideal atmosphere.

This strictly interior power of the mind may be regarded as the first step in its consciously reflective action, in which,—not as in the partly involuntary condition of mere remembrance or recollection, it is comparatively passive, or works under a law of necessity,—but voluntarily and deliberately coöperates with impressions received from without, with a consciousness of their tendencies and of its own action. It is this power which virtually confers on man a world of his own,—an intelligent sphere of activity, independent, for the time, of the external universe in which he moves,—a sphere in which his higher intellectual and moral nature has its appropriate scope. The strength, the clearness, and the precision with which this faculty acts, determine his rank in the scale of intelligence and moral power.

Its Susceptibility of Cultivation.—In the relations of educational culture, the exercise of this faculty becomes a subject of deepest interest to those whose office it is to train the mind to true and effective habits of action. Nothing, indeed, can give a more impressive view of the benefits of proper cultivation, or of the susceptibility of this faculty to the influence of culture, than the contrast between the feeble and futile efforts of the child to form an adequate conception of the causes of the most ordinary phenomena of daily life, and the comprehensive grasp of conceptive intelligence with which the mature mind of man reads the great volume of facts and their relations, and interprets their most hidden laws. A similar contrast is exhibited to us in the wondering ignorance of the savage, contemplating the varying aspects of nature, and the man of science, to whom they present themselves as necessary results, thoroughly understood, and as verifications of philosophic theory.

The mere perceptions of the child or of the savage may often be more exact than those of the philosopher, because these depend on the freshness and vividness of sensation. But the *conceptive* power of the mind is, to a great extent, the result of the force of processes purely mental, and the skill and exactness with which these are conducted. In such operations, practice and discipline alone can yield perfection as a result; and for success in them the candidate must look to the sustaining aid and the crowning hand of education.

If we would form even the humblest idea of the mental value of the power of conception, we must refer to all that man has achieved in the acquisition of knowledge or the attainment of truth; we must advert to all the relations which he sustains to things lying beyond the sphere of sense, in the wide regions of opinion, of theory, and of sentiment; we must include his views of his own position in the universe, his views of the character of Deity, of the immortality of the soul, of the obligations of duty, of his social and civil life, and of all the institutions to which his conceptions of these various relations have given origin.

It is in these wider and higher references that conception, as a power of reflective intelligence, indicates its peculiar rank and office. Working by the blended lights of reason and of consciousness, it enables man to construct the fabrics of science and of character, by a consecutive progress of attainments in which every deposit becomes but a substratum for another in the series of an indefinite succession.

(3.) Consciousness: *Etymology of the Term.*—The etymological signification of this term invites our attention for a moment, to the peculiar suggestive value of the first element in the composition of

the word. Primitively, the meaning of this element is fully given by the equivalent term *together*, always implying a reference to *duality* or *plurality*. It ranges, accordingly, over the whole class of synonyms which may be grouped under the terms, "collation," "apposition," "union." In the use, therefore, of the term "consciousness,"—since the *root* of the word signifies *knowledge*, or intelligence,—the mind is represented as acting *together* with, or in *union* with, itself—that is, with *self-intelligence*. The prefix of the term, in this instance, accordingly, as in that of the word "conception," has the virtual significance of *inner*, *inward*, or *interior*, and suggests the idea of the mind acting on itself, on the objects of its own creation, or on the subjects of its own reflective conceptions.

Fitness of its Application.—There is a striking appropriateness, in this view, of the term "consciousness" as a designation for that power by which the mind becomes capable of momentarily detaching, as it were, from itself the idea of its contemplation, and working as a two-fold power; one effort of which is to hold up the ideal object, and the other to direct a wakeful and conscious attention to it, for some purpose of examination or reflective inquiry. The intelligent principle thus works—according to the interpretation of the term—*together* with, or in union with itself, in the compound or two-fold action of *conception*, and *attention;* the latter being introverted, so that the mind is aware of its own condition.

The peculiar fitness of the term in question becomes yet more distinctly apparent, when we advert to the common fact of experience, that, in the outward tendencies of the faculty of perception, the attraction of external objects is often so powerful and absorbing as to cause the mind to "lose its consciousness" in the contemplation of what it beholds, and to forget, for a time, its own existence, in the force of the attraction by which it is evoked, or the intensity of the excitement to which it is subjected, and which it temporarily identifies with the object of its attention. In the state of consciousness, on the other hand, the mind is *self-possessed;* it is *aware* of its own state of thought or feeling, and *voluntarily* dwells on the fact of introversion.

Different Opinions on the Nature of this Faculty.—Consciousness, as a term applied to the designation of a mental faculty of the reflective class, is, like many other terms in the nomenclature of intellectual analysis, a confessedly imperfect yet significant attempt to suggest a perfect recoginition of an act or state purely internal. The imperfection here felt, attends more or less obviously, yet unavoidably, every attempt to define the action of mind,—that transcendent power

whose subtle agency often proves too fine for the grasp of its human representative, language, an interpreter whose terms are all, in consequence of the limitations of humanity, "of the earth, earthy."

The diversity of opinion among intellectual philosophers, therefore, on the nature of this power, is not surprising. Some would ignore its existence as a cognizable faculty, and identify it with the mere reflex act of attention; others elaborate its action in detail, so as to identify it with voluntary and prolonged reflection. Both these classes of observers evidently take the ground that it is dependent on the exercise, more or less active, of the will. But the painful act of consciousness in the experience of corporal or mental suffering, is often altogether involuntary, and resists, sometimes, the strongest efforts of the will, even in the loftiest moods of heroism itself; and the intellectual attraction of a mathematical problem, or a metaphysical question, will fascinate the conscious thinker, and draw him on involuntarily, from stage to stage of its processes, till, in the poet's language, he "forgets himself to marble."

Other authorities on topics of intellectual philosophy, have deemed it more rational to assume that consciousness is an inseparable attribute of intelligence,—necessary to its very existence. They represent it as the element which constitutes the dividing line between thought and mere reverie, between judgment and imagination, or, sometimes, between reason and insanity.

Educational View of this Faculty.—For the preliminary analysis which the intelligent conductor of education requires as his guide in the planning of his procedure, it is sufficient, perhaps, to take the acknowledged ground that consciousness is that state, act, or operation of the mind in which it is aware of its own activity. He will, from this view of the subject, derive two most important conclusions: (1,) that the vividness and distinctness of consciousness must always be in proportion to the clearness, exactness, and force of the ideas which are, so to speak, impressed on the mind from without, and solicit its conscious action as subjects of thought; and (2,) that the definiteness, the fullness, and the depth of consciousness, must always be in proportion to the power of directing and controlling the attention of the mind with reference to its own inward acts and conditions.

Intellectual and Moral Offices of Consciousness.—It is thus that consciousness assumes its true place as a reflective faculty, in the relations of intellect, as the power by which the mind learns to see clearly with its own inner eye, to define with accuracy the ideas which conception creates, to interpret nature's innermost secrets of causation, to follow the lengthening processes of reason, in the profoundest depths

of investigation, and so to construct the magnificent fabrics of pure science. The reflective power of consciousness becomes yet more impressive to us, when we regard its vast influence on the moral relations of mental action. It then reveals itself as an agent but a little lower than the divine element of *conscience*, and as the very condition of the paramount influence of that power over heart, will, action, and character. In the unconscious condition of childhood, and in the immaturity of experience, conscience moves with the light step, and the gentle hand and the soft accents of the guiding angel of Innocence. But it watches with a jealous eye, restrains with a firm hand, controls with the tone of command, or rebukes with the voice of reproach, the conscious agent who, in maturity of years, departs from the path of rectitude. But not in the stern monitions or the agonizing inflictions of remorse alone, does conscience act on consciousness. The sting and the lash are not its only implements of discipline. Conscience appeals to man's conscious power for good, when it uses "the spur which the clear spirit doth raise," and reminds him of his position "but a little lower than the angels," his resources of intellect, his moral ability, his relations of duty, his capacity of ceaseless progress, his desire to win the crown of excellence, his obligations to the Author of his being, and his aspirations after an immortality of glory.

Educational Culture of this Faculty.—The educator, therefore, while he would guard his pupils against that selfish and morbid consciousness which dwells exclusively on the condition of the individual, and keeps him forever in the abstracted mood of introspection and introversion, shut up in the cell of self, and withdrawn from usefulness to others, will use all salutary measures to give vigor and life and full activity to this powerful element of mental action and character.

(4.) Reason: *Explanatory Remark.*—The successive changes which, in the progress of time, are produced on the original meanings of words, will sometimes render a literal adoption of the primitive sense of any term an uncertain guide in metaphysical investigations connected with the action and phenomena of mind. A due regard, however, to the etymological structure of terms employed to designate the intellectual faculties, will always serve to suggest useful ideas for the guidance and direction of education. Such terms, it is not to be forgotten, had their origin in simple and primitive states of human life and character, and are therefore exempt from the uncertainty and ambiguity resulting from the mental condition of more advanced stages of society, in which opinion is refined, by false as well as true culture, into more subtle and more sceptical forms, and sometimes falls into the entangling web of sophistry and false judgment. The

primitive uses of language betray, it must be acknowledged, the historical childhood of man; but they possess, also, the truthfulness, the simplicity, and the directness of that stage; and their vivacious and figurative character always render them strikingly suggestive. In philosophic investigations connected with the analytic study of mind and the adaptation of modes of culture to mental discipline and development, the primitive signification of terms, whether it be literal or figurative, becomes, at least, an index to analysis, which, if faithfully traced, may lead to true and satisfactory conclusions on topics otherwise obscure and uncertain.

Etymology of the Term.—To apply this remark to the instance before us. Clearer conceptions and juster views of the faculty which we designate by the term "reason," would generally prevail, and would exert a corresponding influence on modes of mental culture, were the original meaning of the word adverted to in discussions connected with these subjects. The word "reason" is but the Latin scientific term "*ratio*," so familiar to the ear and mind of every teacher and every student of mathematics. It has merely undergone some slight modifications in passing from the Latin language, through the French, into our own. Its original sense, therefore, suggests the idea of *rate*, *measure*, or computation, as a conscious application, or act, of intelligence; and if we would trace the simplest and purest form of reason, we thus find it in the act of recognizing or constituting *rate*, or *ratio*, which in complicated processes, becomes *proportion*, or *symmetry*.

Reason characterized by the Definiteness and Certainty of its Action.—The idea suggested by the primary application of the term "reason," is that of *definiteness* and *exactness* of observation, carried even to the extent of examination by actual *measurement* or computation. No certainty of knowledge can be greater than what is thus intimated, when the inner action of intellect is verified by a direct appeal to objective reality attested by sense; and, in the legitimate uses of language, the measured exactness of verified observation is figuratively transferred to the decisions of judgment and the deductions of reason, in the comparison and examination of ideas and conceptions begun, continued, and ended, within the mind itself.

The processes of thought conducted on this firm ground, possess a definiteness which places the conclusions of reason in striking contrast with the comparatively vague and indefinite intimations of *feeling*, around which the boundary line of distinction can not with certainty be drawn, even in the most vivid states of consciousness. The ideas of reason stand thus contrasted, also, with those of *imagination*, which are often shadowy and indefinite, inexact, or inadequate, and

always comparatively fleeting and uncertain;—sometimes, unreal and false, the mere flitting phantoms of fancy. The purely intellectual conceptions of reason, as subjects of the mind's own inner *consciousness*, are, yet further, distinguished from the merely *perceptive* action of sense and understanding, in the relations of intelligence directed to the *external* world. Reason, working on data strictly mental, ever partakes of the certainty of *personal* knowledge and *conviction*, which, to the individual,—whatever it may be to others,—is, in its proper relations, the surest of all the grounds of mental action. Our senses, we are aware, may misinform us: our conscious experience can not.

Offices of Reason in Definition and Discrimination.—This faculty, by the measured accuracy of its action, becomes the means of *defining* our ideas and *discriminating* them in differential detail. It groups them in the *genera* and *species* of orderly *classification*, and *analyses* the complex into the simple, even to the minutest individual element of the compound. It thus enables the mind to search and scrutinize the obscure or the uncertain, till every object is brought out into the light of certainty and conscious knowledege. In these, as in all other forms in which this faculty is exerted, the appropriateness of the primary application of the term by which it is designated, is distinctly perceived. In all its operations, it is stable, sure, exact, to absolute certainty. It was in virtue of its authority that the great modern philosopher "carried," as has been happily said, "the measuring line to the boundary of creation;" and all its inward and conscious exercises partake of the same exactitude.

Reason, an Authoritative Power.—When this faculty condescends to its humbler offices of recognizing the intimations of sense, and accumulating the deposits of knowledge, and maintains a comparatively quiescent, receptive, or passive condition, it bears the unassuming designation of "understanding;" as it is then regarded as merely furnishing the *groundwork*, or under stratum, of intelligence. But when it assumes the higher office of deciding on and determining the exact relations of thought, it is honored by the highly figurative appellation of "judgment"—a term the etymology of which implies the enunciation of *right*, or *justice*, and hence, whatever, also, is implied in its synonyms, *decree*, *sentence*, or *decision*. Reason, when thus occupied in comparing, measuring, or exactly estimating things or their relations, is, by the use of language, personified as the *judge*, whose office it is to *scrutinize*, *compare*, and *balance evidence*, so as ultimately to *decide* or *determine*, and give *judgment*, *sentence*, or *decree*, according to the usage of ancient times, when it was that officer's prerogative to discharge the office assigned to our modern juries, as well as

that still recognized as proper to him who presides in the court of justice.

When this master faculty of human intelligence soars to a yet higher pitch, and its action, whether "intuitive or discursive," embraces great and *general principles*, sees or traces the relations of *necessary* and *universal truths*, and announces the majesty of *causation* and of *law*, it resumes its wonted designation of *reason*,—a term too limited for the scope and grandeur of its action, and the dignity of its office, as man's highest functions, in the relations of intellect.

True, it fails whenever it would usurp the appointed place of *conscience*, and *reason* man into perfect rectitude, or when it presumes to supersede the guardian office of *faith*, and offers man the guidance of mere intellection to the recognition of a paternal God. But, limited as it is, by the conditions of humanity, it still is, within the sphere of pure intelligence, that which reflects in man the image of God, and to which, in healthy and normal conditions, all his other intellectual powers pay homage.

Reason as cognizant of Relations.—Reverting to the primitive sense of the term "reason," as recognized in the application of the word "ratio" to processes of measurement connected with time and space, and figuratively transferred to operations purely intellectual, we are reminded that, in all such processes, one object or subject is *referred* to another, with a view to determine or define a *connection* of some sort or other between them. This fact accounts for the usage in language by which reason is represented as the faculty which takes cognizance of, or traces, *relations* in general, or, in other words, refers one thing to another, for purposes of *examination*, *comparison*, or *investigation*, with a view to ascertain their *connection*, or their *independence* of each other, as an element of thought essential to the acquisition of knowledge or to the discovery of truth. The mind is thus introduced into a sphere of action coëxtensive with all the outward objects and inward subjects of thought, and expatiates, with the delight of conscious freedom and power, in the two great domains with which it is endowed as its heritage and birth-right; for reason, not less than imagination is an *excursive* faculty, designed to give amplitude and expansion to the being of man; and many of the grandest creations of the latter, are those which it achieves when following the sure and firm steps of the former, in its excursions into the unexplored.

Reason as an Inventive Faculty.—The reference of one object or idea to another, the comparison of one with another, or the discovered relation of one to another, yields within the mind itself, as a result, a

third idea, or conception, a creation of its own. Reason thus becomes a combining, creative, and inventive, (*finding*,) faculty, not less than imagination is, in its peculiar sphere; and, by following its well ascertained discoveries through their long and complicated successions of ever fresh-springing truth, attains, at length, the conscious power to move in new spheres of knowledge, created by its own activity, and in which it furnishes its own material, and erects its own structures. It is thus that it empowers man to fulfill the poet's condition of "erecting himself above himself." Reason, not less than its noble kindred powers, Faith and Imagination, is then justly said to "soar."

In the processes of investigation in which the mind pursues its quest of knowledge as the guide to truth, reason becomes the master key of intelligence, the paramount authority of intellect, the law which gives order and unity to man's intellectual being, the crown and glory of humanity in its distinctive supremacy over the lower tribes of partially intelligent nature.

Aberration of Reason.—When disease or passion has beclouded, or disturbed, or deranged this power, which heaven has ordained as the *executive* of its own first law of *order*, in the gradations of intelligence, man is then dethroned and discrowned; and, with the eye of his mind extinguished, wanders, like the blind champion of old, seeking some one to lead him by the hand.

Reason in the processes of Analysis and Abstraction.—When this faculty is occupied with the processes of collating and comparing, for purposes of discrimination, its action assumes the form of "analysis," (*loosening*, *detaching*, or *resolving*,) so as to simplify the objects or subjects of contemplation, and scan their utmost details of individuality, in character, that the component elements of the concrete may be distinctly recognized, in all their differential relations. Subjected to this process, the *genus*, or general class, is reduced to its component *species*, and these, in turn, to the *varieties* or the *individuals* of which they consist. Last of all, the scrutiny must be extended to the difference between individual and individual, or where still more minute examination is required, to the distinctive elements which may be found comprised within the unity of the individual.

Such, in our previous discussion of subjects involved in the theory of education, we found it to be the requisite action of the mind in the exercise of the *perceptive* faculties, when observation descends to the minutiæ of difference on which true distinctions are founded. A similar operation goes on in the interior world of conception, when the *reflective* faculties are called into their peculiar province, when the complex ideas or thoughts of the mind are subjected to the processes of

scrutiny and analysis, and the qualities of objects, or of ideas, are, by an act of *abstraction*, (*taking away, withdrawing,*) considered separately, as if they had for the moment, an independent existence. One quality of an object, one attribute of a subject, is, by this concentrated and exclusive act of attention, "abstracted," (*drawn away,*) or detached, mentally, from the object itself, and from all the other qualities of which it is possessed. The mind is, in consequence of this act of "abstraction," enabled to contemplate more distinctly, or to examine more closely and discriminate more exactly, the given quality. The quality so discriminated may, in turn, become the groundwork of classification, or the commencement of a train of abstract reasoning on broad and general principles connected with the laws of nature and the truths of science.

Intuition.—The immediate action of reason by which it assents to self-evident and necessary truths, on mere "intuition," (*inspection or sight,*) without the aid of any intermediate or intervening thought for the discovery of sameness or difference, might, at first view, seem to be improperly introduced in a survey of the reflective faculties or of educational processes for development. But, the *intuitive* exercise of reason is, not unfrequently, the basis of its *reflective* action, and, sometimes, is the *authority* to which it appeals, when prosecuting examination and inquiry to the profoundest depths of research.

Processes of Inference and Deduction.—Reason, as the faculty by which one object or idea is referred to another, in virtue of some real or supposed connection existing between them, takes cognizance of *antecedence* and *consequence;* and, when this relation is, in given circumstances, observed to be uniform, reason, working by the great law of *analogy*, "infers," (*brings in,*) the *continuance* of this uniformity as a necessary principle or law of *order*. In such instances, this "inference," supported by the undeviating testimony of personal or accredited experience, becomes a firm *belief*, which identifies uniformity of antecedence with the power of *causation*, and uniformity of sequence with the character of *effect*. *Sequence* thus becomes the law of rational *connection*, and a security for the attainment of *truth* in matters of *theory* referring to the *external* universe.

In the consecutive *internal* acts of mind, reason gives "sequence" to the relations of *thought*, in exercises purely *discursive* and *intellectual*, by recognizing the dependence of one idea or conception on another, in the relation of *effect* to *cause*. From one defined antecedent idea the mind is authorized to "infer" another, as a *consequence;* from "premises," (*thoughts antecedent,*) to "deduce," (*draw down, derive,*) "conclusions," (*closes,*) results, or final consequences; and thus, by

giving *certainty* to *opinion* and *assurance* to *belief*, in relations purely *mental*, it forges the successive links of that golden chain of *intellectual necessity* which binds together the elements of the *moral* world.

Reason, in its processes of Generalization and Induction.—In the wider action of this sovereign power, it takes that highest course of which human intellect is capable; and, in tracing the relations of *causation*, aspires, by its power of *generalization* and its processes of *induction*, to announce and interpret the *laws* of the universe, and to read the evidences of a First ordaining Cause.

In these excursions, reason gathers in, from the vast field of analogy, *corresponding* facts and relations; and, in virtue of that pervading *unity* which comparison has enabled it to discover as existing among them, recognizes that spacious principle of *generality* coëxtensive with its own capacities of thought, by which it rises above the limits of the concrete and the particular to the contemplation of those abstract ideas and comprehensive principles which constitute the prime elements of intellectual and moral truth, and which bear the stamp of supremacy and the inscription of Law, human or Divine.

Not less impressive or sublime is the action of this august faculty of the human soul, when it puts forth its *constructive* power, and, aided by the scrutiny of patient experiment, it verifies the analogies of phenomena and of fact, "inducts" them, (*leads* them,) into their appropriate groups of *affinity* and *correlation*, plies them with its tentative, magnetic, aggregating power of "hypothesis," (*theoretic, interrogative assumption,*) and, by careful *induction*, at last consummates the vast fabric of "theory," (*intellectual vision,*) whose foundations are laid in the certainty of *knowledge*, and whose walls rise, in the symmetry of *truth*, to heights which inspire the mind with awe.

Ratiocination.—In the dimness of abstract conceptions, in the obscurity of abstruse relations of thought, or in the apparent conflict of contrasted truths, when the eviction of hidden causes, or when the detection of intermediate and reconciling principles, becomes essential to the conscious recognition of ideas, to the distinct conception of relations, or to the firm conviction of truth, reason comes to the mind laboring under *uncertainty*, and brings the aid of its *discursive* processes of *ratiocination*, in the form of *dissertation, argument, discussion*, and *debate*. Assuming the seat of *judgment*, it thus institutes *inquiry*, conducts *examination*, prosecutes *investigation, discriminates terms, scrutinizes allegations, compares* conflicting *arguments, weighs* opposing *evidence, judges* of *facts, rejects assumptions, exposes error, detects truth* or *falsehood*, and pronounces its authoritive and final *decision*, as the inevitable *law* of intellection.

Reason, as cognizant of Truth.—Reason, in its judicial capacity, traces, or recognizes and announces, the correspondence or the discrepance of idea with object, thought with fact, conception with conception, principle with principle, proposition with proposition, sentiment with sentiment, opinion and statement with fact, language with thought, argument with argument, effect with cause. It thus, by the eviction of *truth*, produces in the mind the result of *conviction;* and *truth*, as the consummated and perfect result of the action of *reason*, in its cogniziance of the ascertained relations of *knowledge*, demands, in virtue of the supremacy and authority of the faculty by whose agency it is discovered, the assent of the mind, in the form which we term *belief*,—not a bare comprehension or merely passive reception by the *understanding*, not the mere negative acquiescence or silent admission of the *judgment*, but the consentaneous recognition and adoption which come from the *voluntary* action of *reason*, uniting itself with the subject of its contemplation, and identifying with it all its own consequent action. Reason, therefore, has to do with all the preliminary processes by which truth is established; and in the moral not less than in the intellectual relations of thought, has, for its office, the sifting of *evidence*, the scrutiny of *testimony*, the weighing of *proof;* on the validity of all which, *belief*, as the normal and healthy tendency of the mind, is conditioned. In the yet higher sphere of Sacred truth, belief becomes subsidiary to the Faith which *trusts*.

Reason, as susceptible of Cultivation.—As the subject of disciplinary culture, this faculty presents itself to the educator as that to which his chief attention is due, in the relations of intellect, not only from its supremacy in the class of faculties to which it belongs, and the fact of its being the very constituent of intelligence, but from its peculiar susceptibility of development and training, and the extent to which it may be rendered clear, decisive, vigorous, and comprehensive, by appropriate exercise. No faculty reveals more distinctly than this the progressive character of man, as an intelligent agent, if we advert to its dim, uncertain, and feeble action in childhood, and its ceaseless growth in soundness, clearness, and vigor, as life advances to its maturity. But when we contrast the reasoning powers of such individuals as Newton, Locke, Butler, or Edwards, in manhood, with the mere germ of latent capability which they possessed in infancy, we perceive yet more distinctly what education may accomplish for the eduction and strengthening of this powerful element in the mental constitution of man.

The cultivation of this faculty becomes yet more important in its

results, when we advert to its value in the relation of morals. Reason is naturally the firm ally of *conscience*, in discriminating between *right* and *wrong*, and in instituting those reflective trains of thought by which man is arrested in the pursuit of sensual gratification, and called home to himself, in the conscious exercise of higher faculties, in the enjoyment of truer satisfactions, and in obedience to the rectitude which he feels to be the great law of his being. Reason, in coöperation with conscience, then becomes the regulating principle of his actions; raising them from mere obedience to *prudence* and *judgment*, and conservative *propriety*, to the higher influences of *self-intelligence*, *consentaneous action*, and *rational conformity* with the *laws* and *conditions* of *his own nature*, and of the Power by which those laws were ordained. Reason is the eye by which he learns to read the volume of revelation,—whether that written in the language of the "elder Scripture," which speaks of the "eternal power and godhead of the Creator," or that of the recorded Word which makes man "wise unto salvation."

(5. and 6.) JUDGMENT AND UNDERSTANDING: *their Identity with Reason.*—It has been justly remarked by an eminent writer on intellectual philosophy, that, in arbitrarily multiplying the number of faculties attributed to the mind, we confuse our own views of mental action, and lose rather than gain by such uses of analysis. In the prosecution of our present inquiries, it will be recollected, that it has been uniformly our endeavor to keep in mind the absolute *unity* of intellection, under whatever apparent diversity of processes it conducts its action; and the preceding observations on *reason*, as a reflective faculty, have, it may have been perceived, presented the operations of *judgment* and *understanding* as virtually but different functions of *reason*. To venture on a figure drawn from the sciences of observation: *Reason* may be regarded as bearing the relation of "genus" to *judgment* and *understanding* as "species." Reason surveys the whole ground of intellection, whether directed outward or inward; it works in the great field of *analogy*, and on the common ground of *correlation*, *cotendency* and *consistency*, in the universal sphere of thought. In its comprehensive action, it proclaims the *harmonies* of the universe. It has the power, therefore, of *investigating* and *proving analogies*, and, consequently, of *rejecting discordant elements*. Descending to this task, reason becomes, in the vocabulary of intellection, "judgment." Stooping yet lower, to *trace* and *verify relations* of *humbler value*, or of *exterior character*, or processes of *passive reception* of *knowledge* or of *truth*, it assumes the lower office and familiar name of "understanding."

Maintaining the justness of this definition of the faculty of reason, we would not, however, overlook the fact, so important to the right management of education, that the more closely we watch the operations of intellect, the more searching the investigation, and the more minute our analysis, we shall be the better prepared to minister to the manifold wants of the mind, and to its healthful development. The subdivision of *reason* into "judgment" and "understanding," if taken as merely a temporary assumption of *theory*, with a view to fuller provision for mental action and discipline, can not be objected to; and, indeed, the common branches of useful knowledge and of scientific acquirement which constitute the material and media of intellectual education, address themselves distinctively to that classification of the mental faculties which is commonly adopted or recognized. Of these we shall have occasion to speak, when discussing the modes and processes of culture. Nor can any detriment to a just view of mind as subjected to invigorating discipline, arise from adopting, for the time, that more comprehensive classification of the forms of mental action, which is now proposed. We shall pass, therefore, in our subsequent remarks, without further discussion concerning the actual or assumed *number* of the reflective faculties, to the consideration of the *main spring* by which, in the provisions of Creative wisdom, furnished in the human constitution, they are kept in *action*, so as to insure definite and salutary results.

(To be continued.)

XIII. LETTERS TO A YOUNG TEACHER.

BY GIDEON F. THAYER,

Late Principal of Chauncy-Hall School, Boston.

PRINTING has been styled, "the preservative art of all arts;" and *reading* what is printed is the means of communicating to the universal mind of civilized man whatever the press records.

What a leveller — perhaps I should say, what an equalizer — the capacity of reading is! No matter how lowly born, how humbly bred, how obscure the position in life of an individual, — if he can *read*, he may, at will, put himself in the best society the world has ever seen. He may sit down with the good and great men of antiquity. He may converse with Moses and the Hebrew prophets; with Jesus and his disciples; with Homer and Plato; with Shakspeare and Milton; with Fenelon and Newton; with Franklin and Washington; with all the writers in prose and poetry whose works have come down to us, and, through them, with the heroes whose deeds have become the admiration of men; with benefactors, whose acts of love and kindness to their race have proved them to be the sons of God. He may learn the lessons of wisdom that History teaches, the discoveries that Genius has achieved, the light that Science has shed on the world, and the inventions of Art by which the physical conveniences and comforts of man anticipate even his imaginary wants. He may learn how to live, — how to avoid the errors of his predecessors, and to secure blessings, present and future, to himself.

He may reside in a desert, far away from the habitations of men; in solitude, where no human eye looks upon him with affection or interest, — where no human voice cheers him with its animating tones; — if he has books, and can *read*, he needs never be *alone*. He may choose his company and the subject of conversation, and thus become contented and happy, intelligent, and wise, and good. He thus elevates his rank in the world, and becomes independent in the best sense of the term.

Reading, then, stands among the first, if not the very first, in

importance, of the departments of school education; and I propose to devote this letter to the subject of teaching it at school.*

Pursuant to the plan I have heretofore announced, I begin with the simplest details. The first step in teaching reading has usually been that of making the pupil familiar with the alphabet, and a large majority of teachers of the present time pursue this course. There is, however, a better mode, one that is far less irksome to the little learner, and which saves time, while it brings more of his mental powers into exercise. It is that of teaching by words, — the names of things, — with a representation of the object, engraved at each word; as, *man*, *cow*, *boy*, &c., attended by the appropriate figure. Every object familiar to the child's experience will at once be recognized; and its name, spelled in letters, will soon become to him identical with the thing itself. These may be multiplied to any desirable extent, and the form of the letters be by degrees introduced to the child's acquaintance.

When, by frequent repetition, he has learned these words thoroughly, he should be put to short and simple sentences, mainly composed of them, but without the drawings. His vocabulary will by this time have become somewhat extensive; his interest will have been awakened, and he will be prepared to take hold successfully of the ordinarily repulsive task of learning the names of the letters and their various powers. These may be acquired through the assistance of blocks or cards with the names and sounds printed on them, but will be learned with more facility and pleasure by copying them with chalk on the blackboard. Rude will be the work of the child at first; but let him be encouraged, and he will rapidly improve. The object is to make something that to his apprehension is an imitation of the letter in the book; other properties will follow in their natural order.

The method of spelling the words should be by the *sounds* of the letters which combine to form them, and not by their *names*. No difficulty will be found in giving the several sounds of the vowels, and, after a little practice, those of the consonants will be easily made; and the pupil will be agreeably surprised to discover of what simple elements the consonants are composed.

The last process in learning the alphabet is that of giving each letter its original name, and no inconvenience will be experienced from thus transposing the order of study. On the contrary, the preliminary steps taken will have furnished facilities for it.

When the alphabet, with the several sounds of each letter, has been

* So important was this part of education deemed by the Romans, that, if they wished to express their contempt of an individual, they would say of him, "He can neither swim nor *read!*"

perfectly learned, and the pupil begins upon new reading matter, require him, whenever he comes to a word that he cannot pronounce without spelling it, to spell by the *sound* of the letter in the case, and not by the *name*. Teach him to depend upon himself, in all cases embracing previous instruction upon the same or similar points. To prompt him, in every instance when he hesitates, is to impede healthful progress, to keep the mind feeble, and induce him always to lean on another for assistance, at the same time indulging him in a habit of mental indolence, always to be deplored.

I do not mean that a pupil is never to be told a thing but *once;* this would be preposterous. On the contrary, repetition, *repetition*, REPETITION! is the law in teaching the elements of language, as the thrice-inculcated law of Cicero, in regard to oratory, was "ACTION!" Still, I say, the pupil must *help himself*, as far as he has the ability.

A reproach to our schools, conveyed in the expression, "It was read in a *school* tone," ought not, after all that has been done for the training of teachers, to be deserved. I fear, however, that, with comparatively few exceptions, it is too well merited to justify any complaint against the charge. The fault begins in the primary school. The true idea of what reading is seems not to enter the minds of many teachers, and hence this bad habit. I understand reading to be nothing more nor less than *talking with a book in hand*. Hence it should be in practice simply an imitation of *talking;* and the very first words read, and all that follow, throughout the school life, should be given as if the sentiments were uttered in personal conversation. Instead of this, the scriptural injunction in our primary-school reading-books, "No man may put off the law of God," is usually read, No-ah — ma-an — ma-ah — poo-ut — o-off — the-ah — law-er — o-off — Go-ud. Here, then, the remedy should be applied. The child should be told to repeat the sentence without the book, and be required to go over and over again with it, until he utters it correctly. The teacher, of course, will give the proper reading of it after the pupil has made a faithful effort without success. Proceeding in this way, and never allowing an erroneous reading to pass uncorrected, the "*school* tone" will never obtain a footing in the classes.

I am aware that this will cost labor, a great deal of it; but it is worth all the labor you may find it necessary to bestow upon it. Your patience will often be severely tried, but you must never yield. Sometimes you may not be able to conquer without devoting the whole time of a class to a single individual. Never mind! Persevere! Try again at the next reading time. You will finally succeed, unless there exists in your pupil some organic defect. In such case, it would be

in the language of Job Pray, "workin' ag'in natur'," and perhaps your efforts would be unavailing. But even here, I would say, let the experiment be fairly and faithfully tried before giving up.

Akin to this is another difficulty you may have to encounter. The Irish make use of the rising inflection, in reading and speaking, in some cases, where we use the falling. With children of that nation you may find it a thing impossible to correct this habit. Inborn or inbred from the earliest period of vocal practice, it may not be possible to overcome the fault; still, I would not despair of it as a foregone conclusion, but would resolve on victory. This determination, once adopted, renders almost all things practicable.

Many writers on the subject have given *rules* for reading. They may be very well for adults, and especially for teachers; but I doubt whether, with some exceptions, they can be made very useful to inculcate on the pupil. Whatever the rules adopted in a school may be, *the pupils will read as the teacher does*, imitating all his peculiarities, whether correct or incorrect, whether beauties or deformities. He should, therefore, see to it that his own style — the paramount rule to his pupils — is the result of sound judgment and good taste.

To say that one must "keep the voice up at a comma, and let it fall at a period," and that we should "pause at a comma long enough to count one, and at a period while one might count four," is simply absurd, as invariable rules. This may be well enough in most cases, but the exceptions occur so frequently as to render the rule nugatory; and, besides, reading according to such rules would inevitably be most mechanical, stiff, inexpressive, and lifeless.

The grand, invariable rule in reading is, *read to the sense*. This involves explanation and *instruction* on the part of the teacher, which, with many, are wholly omitted. The lesson to be read should be gone over carefully by him at the time of its assignment; the obscure portions clarified, the classical, historical, political, geographical, and other allusions, explained; and the attention of the class directed to any words, difficult or uncommon, contained in the lesson. They should then be required to read it repeatedly and carefully, before the next class-time, seeking the meaning of every word they do not understand, and the proper pronunciation of those words about which they have any doubt. When they subsequently assemble for the class-reading, the teacher should examine them, to ascertain whether they retain all the facts connected with the lesson, which they are supposed to have acquired, and tell the story of the piece, in their own language, before they begin to read it from the book. They will then be prepared to do justice to the author and to themselves;

but *no one can, unless by accident, read appropriately what he does not understand.*

A good exercise in language is, to require the pupils to introduce synonymes for certain words in the lessons, to be read in the sentences in place of the original words. If these were previously indicated by the teacher, and marked by the scholar, those most suitable for the exercise might be selected, and the benefit proportionally increased.

Nothing serves better to secure the attention of the class than to allow the members to criticize each other; to do which most effectually, each one should signify, by raising the hand or other sign, that he has some error to speak of; and at the close of one pupil's portion, others, at the teacher's discretion, should be called on to make the corrections; and so on till every point has been taken up and set right. These corrections may embrace pronunciation, inflection, emphasis, the miscalling of words, tone, quantity, &c. The repetition of the portion thus criticized will furnish the means of judging to what extent the corrections have been beneficial.

I do not mean, in a foregoing remark, to say that *no* rules can be useful to the taught. There are rules, comprehensive in extent, and almost invariable in application, that may be advantageously insisted on; such, particularly, as indicate the tones of voice most appropriate to the expression of the various emotions of the mind, with appropriate rate, force, &c. These, it is true, embrace departments of the subject more advanced than many of the classes in school would readily appreciate, — those of *taste* and *feeling;* but, still, the judicious teacher need not despair of making all understand them in a reasonable time, if he have books adapted to the various capacities of the pupils.*

That only is good reading which renders the meaning of the author clear, forcible, and expressive, — whose *tones* would indicate the nature of the subject, even when the language was not understood. And this may be attained to by very young pupils, if well taught, and made to comprehend the lesson to be read. A pleasant story, or juvenile dialogue, a child reads with great gusto, and as naturally as he would have *spoken* the parts of the characters represented, had he really been one of them himself. And why? Because he understands it, and enters into the life and action of the scene described.

* It is to be regretted that, in many schools, notwithstanding the vast number and grades of reading-books, — many of them very good, and well adapted to the wants of the children, — the most ill-judged selections are made, if *selections* they may be called, when apparently taken without the exercise of a thought as to the appropriateness of the means to the end to be accomplished. This is an evil of magnitude, which committees ought to abate.

Any rules, then, that are promotive of such a result should be adopted and enforced. Children soon learn to comprehend the appropriate tones, rate, and force, expressive of cheerfulness, of merriment, and those of anger and scorn, and to imitate them with life-like truthfulness. They could also readily be taught to render appropriately those of affection, tenderness, pathos, sadness, grief, &c. Here, then, is a foundation for some valuable rules. Having had the nature of the piece explained to him, and being made to understand it, the pupil directly adopts the tone and manner that it requires. Is it of a pathetic character? — he reads it in a tone that excites a sympathetic feeling in others:

"If you have tears, prepare to shed them now!"

"Stay, stay with us! Rest! thou art weary and worn!
And fain was their war-broken soldier to stay;
But sorrow returned with the dawning of morn,
And the voice in my dreaming ear melted away!"

Is it an expression of strong indignation? — he reads in well-adapted tones:

"Ay! down to the dust with them, slaves as they are!
From this hour, may the blood in their dastardly veins,
That shrunk from the first touch of Liberty's war,
Be sucked out by tyrants, or stagnate in chains!"

Is it an invocation in lofty and sublime poetry? — he reads in steady monotone:

"Hail, holy light! offspring of Heaven, first born!"

Is it a familiar, merry ballad? — he reads with lively voice:

"John Gilpin was a citizen,
Of credit and renown;
A train-band captain eke was he,
Of famous London town."

Is it a grand, patriotic resolution that is to be expressed? — he renders it in tones that thrill on the nerves of his hearers:

"I know not what course *others* may take; but as for *me*, GIVE ME LIBERTY, OR GIVE ME DEATH!"

And so of all the variety of themes and passions introduced into his reading lessons.

We know of rules, promulgated by some of the best elocutionists speaking the English language, that fail to make good readers. They

produce specimens of great artistic beauty; they show how plastic is youthful humanity; but they take all the *soul* out of the reading, and leave instead an image of marble, as polished and as *cold!*

I have, while writing this page, fallen, for the first time, on some lines so well adapted to my purpose, that I will venture to transcribe them. They are credited to LLOYD, and are found in Epes Sargent's excellent First Class Standard Reader, — a book admirably suited to the use of the highest class in our Grammar Schools, but not adapted to classes of a lower grade.*

"EXPRESSION IN READING.

'T is not enough the voice be sound and clear, —
'T is modulation that must charm the ear.
When desperate heroines grieve with tedious moan,
And whine their sorrows in a see-saw tone,
The same soft sounds of unimpassioned woes
Can only make the yawning hearers doze.

2. *That* voice all modes of passion can express
Which marks the proper word with proper stress;
But none emphatic can the reader call
Who lays an equal emphasis on *all*.

3. Some o'er the tongue the labored measures roll,
Slow and deliberate as the parting toll, —
Point every stop, mark every pause so strong,
Their words like stage-processions stalk along.
All affectation but creates disgust,
And even in speaking we may seem *too* just.

4. In vain for them the pleasing measure flows
Whose recitation runs it all to prose;
Repeating what the poet sets not down,
The verb disjoining from the friendly noun;†
While pause, and break, and repetition, join
o make a discord in each tuneful line.

5. Some placid natures fill the allotted scene
With lifeless drone, insipid and serene;
While others thunder every couplet o'er,
And almost crack your ears with rant and roar.

* This book is prepared with great labor, good taste, and sound judgment; and contains fifty-odd pages of "Introductory Remarks," that few teachers could read without profit. It has, also, a copious "Explanatory Index," of great value to pupils, if not to teachers.

† From this criticism I dissent. In a majority of instances, there must be a pause in reading, between the nominative case and the verb; and this in proportion to the length of the nominative or nominative phrase. By it expression is improved, taste gratified, and the sense more fully developed.

6. More nature oft and finer strokes are shown
In the low whisper than tempestuous tone;
And Hamlet's hollow voice and fixed amaze
More powerful terror to the mind conveys [?]
Than he who, swollen with big, impetuous rage,
Bullies the bulky phantom off the stage.

7. He who, in earnest, studies o'er his part,
Will find true nature cling about his heart.
The modes of grief are not included all
In the white handkerchief and mournful drawl;
A single look more marks the internal wo
Than all the windings of the lengthened O!
Up to the face the quick sensation flies,
And darts its meaning from the speaking eyes;
Love, transport, madness, anger, scorn, despair,
And all the passions, all the soul, is there."

Yes, true it is, a proper modulation is the great charm in reading. Without it, whatever beauties the reader may introduce, there must be a fatal lack.

Correct pronunciation, too, is an important element in good reading; and although, without it, the sense may be expressed and the feelings moved, much of the pleasure of the hearer is lost. A coarse style of pronouncing degrades the reader, and gives one a low idea of his breeding and his taste. Fix, therefore, on some standard, and insist on its being the guide in your teaching. Walker's has been the most generally received, for the last fifty or sixty years, and still is, in the main, the most reliable. Smart's, to which many defer, is but a slight modification of Walker's; and Worcester's — an authority of the highest respectability — is, perhaps, the best in present use in this country, as comprising nearly all the points of importance that are fashionable among the best speakers and peculiar to the other two eminent orthoëpists mentioned.

It will cost you infinite pains to fix this pronunciation as the habit of your pupils, because, in a large proportion of the families to which they belong, a coarse style is indulged in, which will do much to neutralize the example and most strenuous efforts of the teacher. But be not discouraged. Correct every mispronunciation perpetrated in school, whether in private conversation, in class recitation, in class reading, or in elocutionary exercises. In time, you will make your *mark*, which will tell with favor and advantage on your school.

Among the errors in pronunciation, current in our community, are those of giving the sound of *a* in far for that of *a* in lad; as in grasp, last, transport; — giving the long sound of *a* for the short sound, in alone, above, atone, and to the article *a*, as *ā* man, *ā* book, *ā* house; — giving

the sound of double-*o* for long *u* [ew], in attune, revolution, constitution; * — thrusting *u* into words where it does not belong, as elum, helum, whelum, for elm, helm, whelm; — giving *er* for *o* or *ow*, in potato, fellow, window; — *aw* for *re*, in more, deplore, restore; † — *er* for *aw*, in law, raw, saw, — or rather adding *r* or *er* to the word, as lawr, law-er; — *i* for *e*, in get, yet; — *e* for *i*, in sit, stint; — *u* for *e* or *a*, in silent, reverence, repentance; — *u* for *i short*, in ability, facility; — omitting the *d* in and, and the *r*, when not initial, in almost every word; the *e* in belief, benevolent; the *h* in whig, when, what; the *e* in every, novel, counsel; the *i* in Latin, satin, certain; the *g* in present participles, reading, speaking, loving, &c.

Some of these inelegancies are so nearly universal, that persons — critics in language, too ‡ — are to be found, who would abandon the cases as hopeless, making no effort to correct the faults. To such despair the faithful teacher never yields, but, in proportion to the difficulty, nerves himself for the struggle. The faulty sound of the letter *u*, adverted to above, can be corrected, in any school, if the instructor is a man of taste and energy, and resolves in earnest that it shall be done. The same may be said of the much-wronged *r*. There is no occasion for indulging children in calling storm, *stawm*; corn, *cawn*; morn, *mawn*; — nor of pronouncing burst, first, durst, as if spelled *bust*, *fust*, *dust*.

Children in school will do what they are constantly, perseveringly, and resolutely required to do; and if these faults still adhere to them, the teacher is responsible.

Allow me to say a word as to the mechanical arrangement of your reading classes. Method, in trifles even, serves a valuable purpose, and is essential to success with the young.

If your pupils are sufficiently interested in their lessons to require no particular rank in class to induce fidelity, place them in the alphabetical order of their names. Require them always to *stand*, when reading, in a position of ease and gracefulness, the shoulders set back, the chest protruded, the book in the left hand; every eye fixed on the lesson, and, as far as possible, allow nothing to be going on in the room that may divert the attention of any member of the class. Let the lesson be announced — page, subject, author, chapter, &c. — by some one designated by the teacher, sometimes at the head, sometimes

* This sound belongs chiefly to words in which the *u* follows *r*; as in truth, rule, ruth.

† An effectual corrective for this, in teaching, is, in such words, to require the pupil to transpose the letters *re* in pronouncing, shortening the sound of *er* a little.

‡ "Hermes," in the Boston Transcript of June 26, 1857.

at the foot, and sometimes elsewhere. And, instead of the word "Next," when another pupil is to read, call on some one by name, standing near or remote from the preceding reader, and thus, without any regular order, till the lesson is finished; sometimes returning, again and again, if you see cause, to the same individual. You will thus be sure of the attention of every one, and each will have the advantage of instruction, not in his own portion merely, but in that of every classmate.

If time should not suffice for a regular and effective drill of every member of the class, do what you can *thoroughly;* sham nothing. To teach a class in reading properly is not the job of a few minutes; it should occupy from half an hour to an hour, according to the number of members, that each one may carry away from the exercise some new thought, some item of knowledge, at every lesson. You, of course, cannot do all this, with each of your classes, every day, unless your school is under the charge of several teachers for the various departments; but — following out this plan — when a lesson *is* given, it will be of some value to the learners.

Several years ago, the Board of Education of Massachusetts distributed a set of questions among the school districts of the Commonwealth, for answers from the teachers; and one of them was, "How many times a day do your classes read?" I thought then, and I think now, that, if those gentlemen expected a single teacher to give instruction in anything *but* reading, in a school of the average number of pupils and classes, it was preposterous to hint that more than one reading lesson a day could be given to each class, unless where the merest elements of school studies were taught. To make accomplished readers of a school of children is a rare achievement, and can only be done by much time and patient toil, and never where, from the unreasonable expectations of the directing powers, the teacher is tempted to slur over the lessons.

I have, in these remarks, very unsatisfactorily to myself, given some views of the importance of reading, and added some notions on the mode of teaching it. I find, on review, that it has been done in an imperfect and rambling manner; and were it not given in the form of a *letter*, in which department of composition large liberty is allowed, I should hardly venture to place it on the pages of the Journal, whose articles generally are so superior as literary performances. My aim, however, is not at fine writing, but rather to do something to aid inexperience in the business of developing, to the best results, the various powers of the young.

XIV. INSTRUCTION IN DRAWING.

[From the Connecticut Common School Journal, March, 1857.]

[We take pleasure in giving to our readers the following communication from Miss Dwight, whose system of drawing has been received with much favor by some of our best teachers. We have long felt that the art of drawing was deserving of more attention in our schools, and we cordially welcome any efforts that may tend to secure more interest and better results.

Mr. Hart, a highly accomplished and successful teacher in Farmington, writes that he considers "Miss Dwight's system *most worthy of the attention* of those interested in education. It is a *common-sense* system. It is, in an eminent degree, a natural system, leading, as it does, directly to the study of natural objects, without the intervention of a mere *copy* of them." We commend the article below to the attention of our readers.—Res. Ed., Conn. C. S. J.]

The important question, "how shall drawing be taught successfully in schools?" is now attracting the attention of educationists, which is a good sign of the times. By duly attending to it, they will find that, to teach drawing successfully, it must be taught systematically and scientifically, receiving the same care and attention as other studies pursued. When it is as well taught as others, the practice of the art will be found of great practical value, and not wanting in interest.

Let us suppose that a scholar wishes to learn geometry, after having attained the age of fifteen, and also to become an engineer. With this object in view, and without knowing the simple rules of arithmetic, he is placed under the care of a professed teacher, who first gives him an arithmetical class-book, with directions to copy the sums, and, from the key, to write down the answers. He then gives him the algebra, and follows with the problems of Euclid, all of which are to be copied in the same mechanical manner, without regard to the rules or principles of arithmetical calculation, or the laws of geometry. With such instruction, (for the same process is called instruction in regard to art,) will he be prepared for any practical application of the

science of geometry, or for any independent effort in the way of engineering?

Again, let us suppose that, at the same age, he presents himself for instruction in the art of written composition, not having yet learned to spell, or even to form a letter with the pen. The teacher first requires him to copy, *verbatim*, the lessons in the first reader, and then some finished orations. What will he have gained in the process? True, his tastes will have become somewhat cultivated; but, will he be prepared to write an original theme? Yet, this is the way that drawing is taught in our schools, and the people say, "Of what use is it?"

The love of drawing is a universal taste, which may be known from the fact that nearly all children love to draw. Those who are not pleased with the use of pencils and a box of colors are the exceptions. It would, therefore, require no effort to make it a regular study, commencing at eight or ten years of age. For the disinclination manifested afterward several reasons may be given. In the first place, acquiring the rudiments of the art after the taste has become a little cultivated is a drudgery. It is not more so with drawing than with music. The rudiments of all studies should be acquired at an early period. After childhood is past there is a feeling of dissatisfaction at the puerile efforts at skill, which naturally creates a disrelish for the pursuit. In the next place, drawing is made a perfectly mechanical lesson. The scholar has placed before him a picture of some object, or group of objects, of which he is to make a copy as well as he can. If his poor skill fails in the attempt, the teacher lends a helping hand, and the work is accomplished after a certain manner; and, if the natural taste for art is sufficiently strong, the scholar perseveres until he has acquired the ability to copy a picture without assistance. But, if the scholar have only a moderate taste for it, he finds no gratification in the pursuit, and, as no intellectual capacity is exerted or gratified, he gives it up in disgust, asking the same question, "Of what use is it?"

Yet, it is of use, even in this imperfection, inasmuch as it sometimes leads to the development of fine natural abilities, the cultivation of which is a source of profit and honor to the possessor. With common school training, the talent for other things is developed, and, if properly taught, the scholar finds himself capable of making the most of his natural gifts. Every talent, but that for art, is duly cultivated at school, or, at least, a foundation laid for it; and, why should this be made an exception?

In regard to the manner of teaching, the scholar should commence

young. Every teacher understands the difference exhibited in the capacity for acquiring rudimentary knowledge at the respective ages of seven and fourteen. Childhood is the period for acquiring rudimentary knowledge in every department of study. Then, there is no impatience felt at slow progress; no haste to get on to something apparently more attractive. And, to acquire perfect manual dexterity, either at the piano or the easel, the scholar must begin to practice in childhood. In the instruction of this branch as well as that of mathematics there is but one right way. Let the teacher first give the child some exercise in curves and circles, without reference to drawing from any model, at the same time holding his pencil properly. This requires that the wrist should rest upon the table, leaving the whole hand free for action. The drawing of curves in every direction, with the wrists so rested, will be found a perfectly easy and natural exercise of the hand. There is no better preliminary exercise than the drawing of a circle, guided by the eye; not to make one, and then another, and so on for twenty in succession, and leaving them imperfectly done; the scholar should correct and improve each one according to his ability; dividing it by straight lines into halves and quarters of circles, depending on his eye alone for guidance. This is all the preliminary practice required in straight lines. In drawing straight lines for this purpose, he does not find it irksome, for he has an object in view. On the contrary, nothing is more tedious or more useless than drawing straight lines merely for the exercise. The straight line may always be corrected by the ruler. The great point in practice is to make the curve, and this should be the first object aimed at; for, the infinite variety of curves required in the practice of art no instrument can define, no ruler can rectify.

The ability to draw a straight line has been considered a test of native capacity. This is one of the mistakes of ignorance. Let the teacher question the scholar in regard to the division of his circle, and if he can not see when one part exceeds the other in size as marked by his line, he has no eye for form, and will not progress by practice. If his eye is capable of measuring so as to detect a difference, it will improve by practice, and he will, in time, if made to depend upon his eye, learn to discriminate the nicest variation of curve. This is of first importance. Do not forbid measuring; but, encourage independent action and self-reliance in every effort.

The first step is to imitate some simple form which gives practice in the curve. The object itself is preferable to the representation of the same thing on paper; and, the scholar should, from the outset, be

accustomed to making his own representations of objects. If he does not begin with that, (and it is just as easy for him,) he does not know when to change. After having first drawn from prints, beginning with the imitation of form is just like commencing anew. From simple objects he should go on gradually to more difficult, always improving and correcting his drawings. The teacher should require him to correct his own work; point out the faulty part, then let him study the form of the object before him, carefully comparing his own imitation of it, correcting and improving his lines, until he has accomplished all that he is capable of doing at that stage of progress. This is the most important part of his exercise; and, to accomplish his task well, he must apply himself to drawing as to a study. The teacher should render assistance according to his judgment, and, by his own lines, show the scholar, if a better curve can be made than his own.

In this method of instruction the class will not fail to be interested. In one school, where the instruction given was limited to mechanical copying, the class anticipated the lessons with a feeling of dislike. Casts are now introduced as the models for study, and the scholars have become so much interested that the time given to the lesson is considered too short. They are interested because they feel that they are acquiring skill with the pencil, and really understand the value of the lesson to which the hour is appropriated.

[The following extract from a letter from Prof. Phelps, Principal of the State Normal School of New Jersey, in which a pupil of Miss Dwight has taught Drawing after her method, bears the strongest testimony in its favor.]

It gives me very great pleasure to bear unequivocal testimony to the excellence of the method of drawing which has been in use here during the past year. The progress made by our classes, in view of the limited period during which they have been under instruction, is altogether unexampled in my experience or observation. The lively interest exhibited by the pupils, and the genuine love for the study of art which this method has inspired, give it precedence over any other with which I am acquainted. Indeed, I believe Miss Dwight has developed the true idea, and that it is destined to work out a radical revolution in this important department of school instruction.

XV. CATECHISM ON METHODS OF TEACHING.

TRANSLATED FROM DIESTERWEG'S "ALMANAC," (*Jahrbuch,*) FOR 1855 AND 1858,

BY DR. HERMANN WIMMER.

I. INTUITIONAL INSTRUCTION, (*Anschauungsunterricht,*) BY A. DIESTERWEG.

1. *What is the object of intuitional instruction?*

To prepare the child who has just entered the primary school, for formal school instruction.

2. *What is therefore its external position in the course of instruction?*

It forms as it were the bridge from the liberty of home life to the regular discipline of the school; it is in regard to instruction, an intermediate between home and school.

3. *What is to be effected by it?*

The children are to learn to see and to hear accurately, to be attentive, to govern their imaginations, to observe, to keep quiet, and to speak distinctly and with the right emphasis.

4. *With what objects must this preparatory education deal; having in view a "formal" aim, but no acquisition of knowledge?*

Perceptible or perceived objects; hence its name. It has a two-fold meaning; real observation by the senses, especially by eye and ear,—and such management, by the teacher that the objects, their qualities and conditions, are made vivid interior perceptions.

5. *By what do we know that its end is attained?*

By the whole appearance of the children, and particularly by their correct and proper speech and pronunciation, which can not be valued too highly from the first beginning.

6. *What is the beginning of this instruction?*

After a conversation about father and mother, to gain their confidence, and after some directions concerning the mode of answering and behaving in the school-room, the first thing is to observe the room and its contents. The pupil is to be made acquainted with all around him; he must learn to see, to name, and to describe exactly, all objects in the room.

7. *What must be chiefly attended to from the first day?*

(*a*) A clear, emphatic statement in complete sentences. E. g. What sort of thing is this? This thing is a chair, etc.

(*b*) A comprehensive view of all qualities observed in an object, at the conclusion of each exercise. This is of the greatest importance in all instruction.

8. *What is the second step?*

Observation of the whole school, school-house, road, village or town, in their external qualities.

9. *The third?*

Observation of some of the animals in the place, and of man.

10. *What next?*

This depends on circumstances. In general, it may be said, that the result of this instruction may be secured by from four to six hours a week during the first year. The duller the children are, the longer it must be continued. It may be further extended to the trees and plants of the neighborhood, the trades and employments of the people in the place, clouds, weather, wind, fire, water, sun, moon, stars, etc.; in short, to all objects accessible to real observation. Accurate contemplation or description of models of mathematical bodies may also be very advantageous. The teacher should draw the streets and houses of the place before the eyes of the pupils on the blackboard; he may resort to "*Stäbchenlegen*," (laying down small sticks; see Diesterweg's *Kleinkinderschule*, (Primary School,) fifth edition, and Stangenberger's book;) he may use the picture tables; in one word, he may arrange any variety of useful exercises to attain the important end. It is least possible in this branch, to prescribe in books a regular and equal course to all.

Of the greatest importance, we may repeat, is the way in which the children speak and pronounce. A teacher who is unmindful of this, prepares trouble for his whole professional career. Instruction in teaching, if the teacher understands it, is at the same time instruction in language. It is not, however, instruction in grammar; yet it leads to the understanding of the language, and to attention to words and expressions in general. Not only the nouns, adjectives and verbs, but the prepositions and conjunctions also, should be managed without the mention of their names, but by using practical examples of them. It is not the object to explain these words, but to use them correctly by means of a variety of exercises.

The best manuals for the Intuitional Method direct such instruction, and the teacher shows his skill in the suitable choice of objects, and especially in the varied and attractive treatment of them. Less depends on the selection of what is to be discussed, than on the way in which the attention of the children is secured. If the proverb "Every way is good except the tiresome" be true any where, it is true here. As soon as the children get tired, the subject must be dropped. Success depends entirely on the activity of the children. This is true, indeed, of all teaching, but preëminently so where knowledge and technical ability are not aimed at, but only an awakening of the slumbering faculties, a "formal" end. Attention, liveliness, a desire to observe, and to answer, etc., are the measures for judging of success.

If the result is secured, i. e., if the pupil is prepared for learning, the teacher leaves this instruction and advances to study proper, which is likewise intuitional. That is, he proceeds always from facts, from real, undeniable and undisputable facts. The importance of this principle is not yet enough understood, nor has the subject been exhausted by teachers or educators.*

II. Instruction in Reading, by Honcamp.

Reading Writing together (Schreib-Lese-Unterricht.)

1. *Shall the first instruction in reading be begun in connection with the first instruction in writing?*

Most certainly, for reading and writing are most intimately connected.

* Harder, in his manual, (Altona, 1853,) differs from these views so far as he makes this instruction the basis of real instruction, and likewise real instruction itself. "But where matter dominates," says Kalisch, "pedagogical management and general cultivation is at an end; for to the teacher, matter is secondary."

2. *Was instruction in the former separated from the latter in olden times?*

From ancient times writing was accompanied by reading; but not until modern times, (since Graser,) has reading been connected with writing, in all its steps.

3. *Is this method according to nature?*

It is natural, because reading and writing are properly but two different sides of the same thing, i. e., of the written language.

4. *But is it not easier, first to practice the one, and not to practice the other, until the greater difficulties of the former are mastered?*

Quite the contrary. Reading and writing assist each other mutually, and experience teaches, that the first instruction in either, is made more efficient by their union.

5. *In what way shall they be connected?*

The teacher can either (analytically) view the spoken word as a sound, and then have it (synthetically) represented by the signs for the sounds, i. e., the letters, in which case writing is prior; or he may first view the written (printed) word as a representation of the sound, (analytically,) and then have it (synthetically) reproduced by pronouncing or reading—in which case reading is prior. We have, therefore, either a *Lese* (reading)-*Schreib* (writing)-*Methode*, or a *Schreib-Lese-Methode*,—(Writing-reading-method.)*

6. *What may be said in favor of the reading-writing method?*

Writing always precedes reading; the inventor of writing did it for reading's sake; he wrote first, and then he read. Hence, instruction in reading must be joined to instruction in writing.

7. *What may be said in favor of the reading-writing-method?*

In answering this question we take, not the place of the inventor of writing, but of him to whom he first communicated his invention; the inventor taught him first to read and then to write, and in like manner, according to nature, we must proceed now.

8. *Which method is to be preferred?*

It is nearly indifferent, either in regard to subject or result, whether we put the pupil in the more artificial place of the first inventor, or in the more natural place of the first pupil.

9. *What rules must be observed in the adoption of either?*

Reading and writing must always be intimately connected; the elements of the word must be found by analysis, and made the basis of study; and only such words and syllables must be read and written, as have a meaning for the pupil.

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* Reading is always analytical, writing synthetical; but the method of teaching may be different. If reading be separated from writing, the proceeding may be

(1,) Synthetical; where the letter is given, and with it either (*a*) the name of the letter without the sound—*buchstabirmethode*, spelling method; or (*b*) the sound (*laut*) of the letter without the name—*lautirmethode*, phonetic method; or (*c*) the sound and the name of the letter, spelling and phonetic method combined, (*Wilging's, Kauerau's*;) or

(2,) Analytical; where the pupil reviews the written (printed) matter as a whole, that he may resolve it into its elements. The whole is (*a*) a proposition or sentence, (Jacotot's method;) (*b*) a word, (Gedike's method;) or

(3,) Analytico-synthetical; the child, to become prepared for reading, is made to resolve sentences into words, words into syllables, syllables into sounds, and then the teacher proceeds by the combined method. See Jacobi's book on these methods; also Honcamp's "*Volksschule*," No. 10, p. 20.

In the *Schreib-Lese Methode*, (and vice versa,) it is well to give also the *name* of the sound and letter.

10. *Is it not requiring too much of a child, who has not yet mastered the mechanical part of reading, to ask him to think of the contents and understand what he reads?*

Not at all; for word and idea are one, and speaking and thinking are not to be disconnected. "Given the word, to think of its meaning," is not an operation which the pupil has to learn; he does it of himself and has always done it. But to speak, without joining an idea with it, the pupil has to learn, and that too in order to unlearn it afterward with much trouble.

11. *Why is it important never to read meaningless syllables and unintelligible words?*

Because the pupil will read in future as he is taught to read; therefore, he ought to get accustomed from the beginning to seek in all that he reads a proper idea. Every thing not essential, particularly all that would embarrass the first instruction, should be put off to a later time. It is not necessary to proceed from the easier sounds to the more difficult, for the child pronounces all with equal facility; but it is good to begin with the easier letters, so far as their form is concerned, for example, o, i, s, f.

Reading by itself.

Reading may be divided into (1,) mechanical; (2,) logical, (intelligent,) and (3,) æsthetical, (feeling.)

12. *Are these grades strictly to be kept asunder?*

No; reading must never be merely mechanical, without regard to the understanding; with logical reading, mechanical ability ought at the same time to be advanced; nor should reading ever be without feeling; and with æsthetical reading, both the mechanical and the logical processes should be practiced. The first belongs, in a common school, to the lowest class; the second, (logical,) to the middle, and the third to the highest class, i. e., they are preëminently to be attended to in those classes.

13. *Wherein consists the mechanical ability of reading?*

In a quick survey of the written or printed matter, and in the ability of representing a row of letters by the right sounds, syllables and words.

14. *How is this ability best acquired?*

By frequent class-reading, which must alternate with single reading, so that the former is always preceded by the latter, which must serve as a model. Single words and sentences are to be repeated, until they are readily pronounced. The teacher, by his accompanying voice, directs as to right pronunciation and accentuation.

15. *Wherein consists logical reading?*

In that the understood contents of a piece are emphasized in conformity with that understanding.

16. *When does the pupil understand the contents?*

When he knows the meaning of the words, and the meaning of their relations in the sentences.

17. *When does he understand the meaning of the words?*

When he knows the signification of the derived and compound words by the meaning of their elements, and when he well distinguishes between the proper and the figurative meanings of the same.

18. *Should the exercises in the formation of words, and such as help to understand the rhetorical figures, be practiced in the reading lesson?*

They should be combined with grammar, and occur in the reading lesson only so far as is necessary for understanding the words.

19. *When does the pupil understand the relations within the sentence?*

When he knows how one conception (of a word) refers to another; the different conceptions (words) to the speaker; one idea to another; and the different ideas to the speaker. It is sufficient for the pupil to understand these relations without having a conscious insight into them. An analysis of the conceptions and expressions belongs to the grammar, not to the reading lesson, in order not to spoil the pupil's enjoyment of the contents, etc., etc. (The rest has more particular reference to the German language.)

III. ARITHMETIC, (*Rechen-Unterricht,*) BY A. DIESTERWEG.

1. *What has brought arithmetic into the common school?*

The wants of daily life—material necessity. Its introduction was historically the first of those which caused a change in the organization of schools. (Rabanus Maurus, in the ninth century, recommended arithmetic and geometry, because they open mysteries, because the Bible speaks of cyphering and measuring, because we learn by it to measure the ark of Noah, etc.)

2. *Is this the only reason why the present common school teachers retain this instruction, and consider it indispensably necessary?*

Not at all. They have recognized in the right treatment of number, and of its application to daily life, an excellent discipline of the mind; the formal object is added to the material one.

3. *How do they compare in value?*

The formal object has the preference; in no case is it to be subordinate; the development of the mental powers is in every school the chief point. But they do not exclude one another; quite the contrary. The formal end is attained just so far as the matter to be understood is worked through.

4. *What motives decide on the choice and arrangement of the matter?*

First, the "formal" motive; i. e., regard to the mental nature of the children, the laws of human development; and especial regard to the individual nature of the learner; next, various external circumstances—differences of place and time, and of schools. The first motive is universally the same; it dictates the *management* of the number; the second directs the *application* of the number, or calculation.

5. *How far ought all to advance in arithmetic?*

The maximum can not be stated; nor the minimum either, at least in regard to the degree of formal development. It remains to point out the material minimum, and this requires every child to be able to solve the common problems of every day life. It is neither necessary nor possible, that all scholars should reach the same point.

6. *What is to be thought of prescribed rules and formulas?*

They are to be entirely annihilated. No operation, not understood in its reasons, should be performed, or learned. The scholar must be able not to demonstrate mechanically each operation, but to give the simple reasons which justify it to the mind. The right deductions from the nature of the number and of its relations, are to prove its correctness.

7. *Wherewith must instruction in arithmetic begin?*

With the numbering of real objects, (cubes, little rods, fingers, etc.)

8. *What inductive means are next employed, and how long is their use continued?*

The teacher next proceeds to the use of artificial means, as lines, points, cyphering rods, Pestalozzian tables, etc., and continues to practice the simple

changes of number with them, until the pupil has a perfectly clear idea of the numbers and of their quantities.

9. *What next?*

The teacher advances to the use of figures.

10. *What is the treatment of the number, with and without figures?*

The latter always precedes the former; the written or slate arithmetic every where follows mental arithmetic. Not only does the cultivating power of arithmetic lie in the insight into the relations of number, but also the wants of practical life demand preëminently skill in mental arithmetic.

11. *Upon what chiefly depends that skill?*

First on the ability in handling the decimal principle, (*Zehnergesetz*;) then on the ability to compare and analyze numbers.

12. *How do the exercises with so-called "pure," and with applied numbers, compare?*

The former always precede; application presumes ability in treating the pure number. This being attained, questions, problems and exercises follow; together with denominate numbers, and their application to life.

13. *Are the exercises with numbers from* 1 *to* 100 *to come in order after the four rules, (addition, subtraction, multiplication, division?)*

No. All operations ought to be performed successively with these numbers; the regulated uniformity of the operations comes later. (Grube, Schweitzer, etc.)

14. *Shall fractional arithmetic be entirely separated from instruction in whole numbers?*

No. No. 13 forbids it, and makes it impossible; even considered in itself it would be improper.

15. *Which points must be distinguished in practical problems?*

First, the understanding of the words.

Second, the relation of the question to the statement, or of the thing required to the thing given.

Third, the understanding of the way in which the unknown number depends on the number given.

Fourth, the finding of the unknown number from the given number; that is, the calculation, oral or written.

16. *What has the teacher to do in these four processes, when the pupil can not proceed of his own strength?*

In the first, the understanding of the words and things in their relations must be explained, and often directly given.

In the second, what is required must be well distinguished from what is given; the propriety of the question must be accurately considered.

The third point is to be brought out by means of questions from the teacher.

The fourth is an affair by itself, and is the pupil's concern.

An exercise is not complete and satisfactory, until the pupil is able to explain these four points, one after another, orally, and without any aid.

The teacher leads by questions, (by analysis;) the pupil proceeds by synthesis. The former proceeds from what is sought, the latter from what is given.

17. *How is talent for arithmetic to be recognized?*

Besides what has been said in No. 16,—by the independent invention of new methods of solving the problems, of peculiar processes, etc.

18. *In what way may uniformity in arithmetical instruction be gained?*

By solving each problem rationally, according to the peculiar nature of the

numerical relations occurring in it, and consequently, without admitting any external rule or formula, which on the contrary ought to result from the subject itself. Uniformity lies in the rational, transparent treatment, and, therefore, in the mind, not in the form. Good rules, etc., are not indifferent, but they must follow the observation of the thing.

19. *Which is the most simple, natural and appropriate form of managing the problems externally?*

Not the doctrine of proportions; it is too artificial, and too difficult for the common school; nor the chain rule, etc. The best form in slate arithmetic for the common school is the so-called "*Zweisatz*," the fractional form, (*bruchform*,) which every where requires reflection. (Scholz.)

20. *What is the value of the so-called "proofs" and abbreviations?*

The proofs are, with a rational method, superfluous; the latter are of little value. A well guided pupil finds them out himself, and if, in the highest class, some of them are pointed out to him, their origin, and thus their correctness, must be demonstrated at the same time.*

IV. Geometry, (*Raumlehre*,) by A. Diesterweg.

1. *Is geometry required in the common school?*

No doubt, for it teaches the *forms* in which every thing appears; the shape of matter and the laws of those forms; the laws of space and of extent in space; the dependence of magnitudes and forms on each other.

2. *Why is such knowledge considered as a requisite for general cultivation?*

Because the whole mass of bodies, the universe, as well as man, exists in space; because without the knowledge of the qualities of space, man would be ignorant of that appearance of things which belong to their inmost nature; because geometry teaches how to measure lines, surfaces and bodies, which knowledge is very necessary; because without it man could not divine, that the distance and size of the sun, moon and stars, could be determined; and because he would even have no idea of the extent of his own abode, and of the mathematical, i. e., fundamental qualities of the same. All this is consequently requisite for general human cultivation, not to speak of its practical value, as well for female as male education, and therefore for the common school, the school of the people. Without it, not the most indispensable part, but an essential part, of education is wanting.

3. *What elements of geometry are to be taught in the common school? and in general what parts of it may be considered there?*

Space admits of "intuitive," (*anschauliche*,) and a demonstrative, (*begriffsmaessige*,) observation.

The intuitive faculty of man perceives immediately objects in space, bodies in their qualities and forms; with the sense of touch he perceives what opposes him in space, the body and its external form; the sense of sight assists him, by determining extent and distance, and by comparing and measuring them. These are operations of *external* intuition. The intellect abstracts the *differentia* of the bodies, and fixes the pure, mathematical form; and thus aids the *interior* pure, or mathematical intuition. Moreover, the logical intellect, perceiving the

* No school can do without an arithmetical text-book. Hence it sufficed to give here the principles. These contain the measure by which we have to judge of the value of the text-book.

dependence of magnitudes on each other, their mutual conditions, the inference of the one from the other, deduces and concludes.

The intuitive part of geometry is that elementary part which is proper for the common school. But thereby is not meant, that the pupils should not learn the dependence of one thing on the other; this even can not be avoided, it comes of itself; but according to the degree of ability, quicker and deeper with one than with another, and one school will make more progress in it than another. But the power to be immediately employed is the faculty of observing—first, the exterior, and then, and preëminently, the interior. The conclusions connected with that observation result therefrom spontaneously; the intellect works without being ordered. Therefore, in geometry, as every where—a fact, ignorance of which, causes much merely repetitious and lifeless teaching, as well as intellectual dependence and immaturity—the teacher ought to lead the scholar to immediate, true and vivid perceptions.

The strict or Euclidean geometry, with its artificial proofs, is not fit for the common school, nor does it prosper there.

4. *What is more particularly the subject of geometrical instruction in the peoples' school?*

The qualities of (mathematical) lines, surfaces and solids.

5. *What method is to be pursued with it?*

The point of starting is taken in the physical body; and from this the mathematical one is as it were distilled.

The order of single precepts or propositions is, as has been said, as much as possible *genetical*. Pedantry and anxiety are here, as every where, prejudicial. The method, always intuitive, requires originality, i. e., the evolving of every thing learned from some thing preceding; aims at immediate spontaneous understanding of one thing *through* the other.

6. *What is the immediate purpose of this instruction?*

To understand the qualities of lines, plains and bodies; to measure and calculate them.

7. *What instruments are used by the pupil?*

Pen and pencil, for drawing; compass and scales, for measuring; the usual measures of lines, surfaces and bodies, for calculating.

V. Natural History, by Ed. Hintze.

1. *What method should be used in teaching natural history?*

The method of instruction is the mental development of the pupil by means of the material development of the object. The method is, therefore, essentially a *process* made by the teacher. Since there can be but one such development, there can be but *one* method.

2. *Which is that true method?*

The one true method is named from the principle contained in it; it is the developing method.

3. *Wherein consists this developing method?*

In development there are three steps; observation, (*anschauung,*) conception, (*vorstellung,*) and generalization, (*begriff.*) Such is the progress of the method. Every where teaching begins with *facts*, and therefore in this case with the observation of natural objects. Of these, individual action and growth must be shown, and the general law of nature thence inferred. In this way and only in this, the pupil is taught according to nature, since he proceeds from immediate observing and knowing to perceiving and understanding.

4. *What mode of teaching is to be used?*

That one which develops by questioning, (*die fragend-entwickelnde.*)

5. *Is this mode practicable in all three courses, (set down by Hintze elsewhere with regard to the capability of the scholars)?*

In the first course, questioning is predominant; on the second, "*der vortrag,*" i. e., proper teaching and explaining must be joined with it; on the third again, questioning predominates. In all good instruction questioning is predominant, and with it conversation with the whole class.

6. *What have we to think of lecturing?*

Lecturing is no form of instruction at all; it is a rocking chair for teacher and pupils; the former has easy work, whilst the latter stare and dream.

7. *What ought to be required of the pupils?*

Their first and chief object must be to learn to *see* right; then follows right reproduction; and the necessary result is right understanding.

8. *What is the value of learning by heart?*

In all instruction nothing must occur which is not understood, and merely learnt by words. One fact well understood by observation, and well guided development, is worth a thousand times more than a thousand words and sentences learnt by heart without understanding. A well guided pupil has nothing to learn by heart particularly; what is understood, is remembered for life.

9. *Shall the pupil use a text-book?*

For natural history it is useless. The good teacher does not depend on it, the bad one has a good means to cover his inability, and the scholar has nothing but a dry skeleton.

The teacher must have mineralogical, botanical and zoölogical collections, and, if possible, a microscope.

10. *What must the pupil do at home?*

Write out and draw what has been treated in school—in proportion to his time—in a brief, concise and neat manner. Besides, the well directed pupil will voluntarily and eagerly occupy himself with nature, look with interest and intelligence at plants, stones, etc., and collect them.

11. *How does an able teacher distinguish himself in this study?*

The able teacher takes pains with his school every where, and particularly in this branch; all energy, punctuality and vivacity, must be applied here, if instruction is not to be a dead and dry mechanism.

12. *What distinguishes a painstaking (strebsamen) teacher?*

The able teacher is found out at school, the painstaking one at home. There are certain branches which are soon done with. But this is not the case with natural history; he who is devoted to it, must follow its own path of progress. The teacher must never cease to study, to make excursions, experiments, collections, etc., to search, to listen, to observe and investigate.

13. *What characterizes the inspiring (geistanregende) teacher?*

He is distinguished by a happy development of sound talents, love of study, and devotion to his vocation. By force of application every one may acquire the necessary knowledge, for nature is every where. If the able teacher shows himself at school, the painstaking teacher principally at home,—there flows from the inspiring teacher every where something that indeed can not be completely gained by study and application; but an earnest will accomplishes a great deal. Besides, it is true, that as under the hands of Midas every thing was changed into gold, so in the hands of an inspiring teacher every thing

becomes enlivened. As the creative mind every where works attractively, so particularly in natural history, zeal, application, love and devotion, spring up spontaneously in the pupils.

VI. Natural Philosophy, by A. Diesterweg.

1. *Should natural philosophy be studied in the common school?*

Certainly. Shall the children in the common school learn nothing of weather and wind, of thermometer and barometer, of the phenomena of light and air, of rain and snow, dew and hoar-frost, fog and clouds, lightning and thunder? shall they see the aëronaut, travel by steam, and read telegraphic news, without knowing the how and the why? Shall they remain ignorant of the constituents of food, and of the process of their stomachs and their lungs? Or is it sufficient to read of all this in the Reader? He who answers those questions in the affirmative, is either himself an ignoramus or a misanthrope, and he who affirms the last knows nothing of the way in which real knowledge is acquired.

2. *What do we begin with? and when does the proper instruction in natural philosophy commence?*

As every where, with showing single phenomena, with intuitive contemplation, with oral representation of what has been observed, and reflection thereupon.

We begin with it in the intuitional instruction of the lowest class. The instruction in geography and natural history develops further the faculty of intuition, and in the highest class the proper instruction in this branch commences.

3. *On what portions of natural philosophy are we to lay stress?*

On all such as belong to the knowledge of phenomena, within the pupil's sphere; the knowledge of the most common things is the chief point.

By this principle we make our choice; we omit, therefore, all that is remote, invisible, and incapable of being made visible; all that can be demonstrated only by mathematical proofs; and keep within the field of immediate observation, stops with those things which every one may know by observation and experience, and show such things, as are not obvious, by experiments with simple and cheap apparatus.

4. *What method is to be used?*

To say nothing of the regard for the individual quality of the pupil, the method depends on the nature of the subject, and on the way in which man naturally acquires his knowledge. Every where man is surrounded by natural phenomena; they happen before his eyes. These, therefore, must be opened, in order to observe apprehendingly, to remember what has been observed, to fix the succession of phenomena, and what is common in a series of similar ones; not only to learn the facts, but also the laws by which they happen, and finally, by reflection, to discover the hidden causes.

Natural philosophy belongs to the inductive sciences, i. e., to those which begin with the knowledge of single facts, abstract from them the law of the process, and then in inverse order, deduce the phenomena from the causes.

The way, therefore, prescribed by the nature, as well as the history of natural philosophy, is, that which proceeds from observation and experience to rule and law, if possible, advancing to the cause, (the so-called regressive method.)

5. *What is the aim of this instruction?*

The knowledge of the most essential phenomena, by which man is surrounded, and the ability to explain them, that is, to state in a simple way their causes.

Most important is the knowledge of all that refers to weather, and we expect, therefore, from a graduating pupil, correct answers to the following questions:

What is the temperature of the air in the different months of the year? Which is the maximum and minimum of heat in our country, and when do they usually occur? What is the corresponding state of temperature in other countries? What are its causes? How do the winds originate, where do they come from, and go to? What are the principal currents of air on the globe? Their causes? What weather is caused by the winds in our country? To which winds is our country chiefly exposed, and why? Origin of fogs and clouds? What is dampness? What causes rain? These and similar questions come so near home to man, that it would prove enormous dullness, if he did not ask them himself, and reflect, on answering them. No doubt that such stupidity is still frequent; but no one will doubt what is the indispensable duty of the common school in the premises.

VII. ASTRONOMY, BY A. DIESTERWEG.

1. *Is instruction about the nature of the universe about astronomy, expedient?*

Most certainly; we require the same from every man. To any one who does not admit that this is requisite, I address the following questions: Has that man an idea of the work of the Creator, and of his relation to both, who is ignorant of astronomy? or even, is he a man? No; he is like a brute confined to a narrow sphere, and has not even learned to make the right use of his upright stature, and of his sense for the universe, the eye; he has not enlarged his faculty of observing beyond the smallest compass, satisfied the inborn desire of knowledge, developed his intellect; he might be compared to a mole that closes its eyes to the light. We justly pity the poor man who has had no opportunity to learn the wonders of the starry sky; we despise him, if he has neglected an opportunity; we blame indignantly whatever would prevent his acquiring that sublime and elevating knowledge.

2. *What should every body know of the universe?*

He should know of infinite space, its laws, the qualities of the sun, the moon, and of our solar system, the relation of the planets to the sun, the position of the earth relatively to the same, its rotations and all that result therefrom, as years, seasons, day and night, in short, the substance of popular astronomy.

3. *How is the pupil to learn this?*

By observation—not by books; for from these we get empty words, hollow notions and phrases; books may at best assist the preceding instruction, but they can never replace it—ask among the "educated" people, what ideas they have in this respect, though they have heard of all and can talk of all. The true, vivid and moving ideas of the great subjects in question are exclusively acquired by an intuitive, developing instruction.

4. *What, therefore, is the teacher to do?*

He stimulates the pupil to observations; he makes him conscious of what has been observed, by illustrative questions and conversations; he draws his attention to the sublime phenomena of the sky by day and night; he talks over with him such observations as can be made daily all the year round on sun and stars; he fixes these observations in good order, and in clear, well defined propositions. This is the first step. Scientifically expressed, the pupil advances to the point of view—of what appears to the senses—of *spherical* astronomy.

This point being attained, considerately and firmly, (we must know first what *appears*, before we learn what *is*,) then reflection follows, whether the things really are such as they appear. The pupil advances from appearance to essence or nature. This step is very important, not only in astronomy, but in *all*

things, and astronomy, for the very reason that it furnishes the clearest and greatest example of this important progress in human education, is of inestimable value. The pupil learns the nature of the things; his perceiving is raised to knowing. Disorder becomes order, variety uniformity, and chaos rule and law. *One* power reigns in the universe, every thing obeys his laws, and everywhere there results order, harmony, development, life; and each heavenly body becomes a part of the universe in its infinite sublimity and brightness.

It is worth while, not only to hear or to read of that, but to know and to understand it. The pupils now advance to *theoretic* and the *physical* astronomy.

At last there commences the construction of the whole, at least of our solar system, out of the centre. From the beginning, instruction proceeds from the periphery, from the point on which the pupil stands; the individual is himself the centre, around which every thing is grouped, and to which every thing is referred; the observation is *subjective*. Afterward, it is made *objective*, and man recognizes himself, the human race and the globe, as a part of the infinite universe.

5. *What has the teacher to attend to more particularly?*

This necessary instruction being still uncommon, we may give here several suggestions:

(*a*) He excludes every thing that can not be brought to sight.

(*b*) He goes always from observation and experience over to reflection and deduction. Astronomy is an inductive science; hence teaching follows the inductive method. The teacher does not "*dociren*," (teach or lecture,) he guides; he does not say one single sentence that could not be found by the pupils themselves; for such as can not be found by them—except historical notices—are not fit for them.

(*c*) He fixes the results in the most definite and pregnant expressions.

(*d*) He brings the things observed, thought, spoken of, to view on the blackboard, and directs the pupils to similar representations. But he does not begin with drawing, this is secondary to the finding of perceptions. He employs every where the pupil's imagination; astronomy is an excellent means to lead it on a sure and safe way. Drawing proves the correctness of the ideas, therefore it should not precede. If the pupil makes a correct drawing, it is the surest proof of his having viewed and reflected right.

(*e*) He abstains throughout from any use of models, (telluria, lunaria, etc.) They serve afterward as proof, but they may be entirely done without. Who uses them in the beginning, is wrong; who requires the pupils to transfer that which is represented by those models, to the universe, requires what is impossible; nobody succeeds. The value of models, even of the best, is very much confined. They show the apparent things better than the real; but even for the former they are not necessary. The teacher may sometimes, by means of a larger and smaller globe, a candle, etc., represent every thing needed. But the perception and representation of what is going on in space, even with shut eyes, is what is indispensable, because it is the principal thing. Whoever does not succeed so far, does not really know or understand.

He who wants to know more, may read my "Astronomical Geography," (*Astronomische Geographie,*) fifth edition, Berlin, 1855, 1½ thaler. (We may add, that this book of Diesterweg's is universally considered as a master-piece of method.—Ed.)

(Continued in Number XI.)

XVI. EDUCATIONAL MISCELLANY AND INTELLIGENCE.

GERMANY.

[A portion of the following intelligence, suggestions and statistics as to education in Germany, were communicated by Dr. WIMMER, for insertion in the previous number of the Journal.—ED.]

PRUSSIA.

NEW REGULATIONS RESPECTING COMMON SCHOOLS.

The three "REGULATIVES," as they are called, for the common schools in *Prussia*, of the 1, 2 and 3 October, 1854 concern, the first, the Normal Schools, the second the "preparanden-schulen" or Pro-Seminaries, the third the elementary schools of but one class, or, with other words, the common village school with one teacher.

The principle on which these regulatives are based, is that the common school (volkeschula,) "has to prepare for real life according to its given and existing relations, and not, *vice versa*, that life is to be formed after the school." The wants of this actual life are the only measure for the future activity of the common school. Not the possibility of the successful promotion of civilization, (bildung,) by the one or the other element of education, by this or that method, has to decide henceforth on its being admitted in the common school, but merely the well-known and unavoidable wants of those classes of population, for which the school has to provide the principal, if not the only education. Those measures have indeed special reference to the village schools, but they are at the same time to be regarded as "fundamental" for all other common schools in town and country. Even there they are first to be acted upon completely, before further and higher steps are allowed. The regulatives are not a transitory, but an important *turning point* in the whole system of common school education in Prussia.

"The movement of ideas which for a long time has been going on in common school education, is in many and important respects brought to an end. It is now high time to do away with what is superfluous and erroneous, and in its stead to prescribe now, even officially, what has been felt long since as necessary by those who know and value the wants of a truly christian education, and has been found really useful by faithful and experienced teachers. As the whole age has arrived on a boundary where a decisive turning rotation has become necessary and real; so the school, unless it will perish by clinging to the past, must enter fresh and refreshing into the new career. The elementary school, in which the greatest part of the people receive the foundation, if not the whole, of their education, has not to serve an abstract system or an idea of pedagogical science, but has to prepare for practical life in church, family, vocation, community and state. The understanding and the practicing of their contents, and an education through them is the aim. The method is merely a means without value in itself: the "formal" education flows itself from the understanding and practicing of these justified and enlisted contests. Henceforth in the elementary school, a right selection and strict limitation of the subjects of inspection, as

well as a good organization of the school are rather to be attended to, than the invention and application of new methods. "For the elementary schools which are divided in several parallel or graded classes, the same principles so far as they regard character and tendency of elementary instruction, are every where and without variation to be applied, and have to form the only basis for the plan of lessons, than to be enlarged in their extent."

In the plan of lessons proposed, of the 26 hours of instruction, no time is set apart for *geography*. "Perfect learning of the *contents* of the *Reader*, (text-book,) and ability to write them clearly, and in connection to do this with one's, i. e., the pupil's own words is required:" "If the circumstances admit to have 6 hours of instruction on the full days, (Monday, Tuesday, Thursday, Friday,) 3 hours more may be applied to 'vaterlandskunde,' (knowledge of Germany and Prussia,) and 'naturkunde.' If no such particular hours can be made out, the communication of the necessary knowledge of the kind must be given in explaining those sections of the reader, which point thereto. But where there are particular lessons, a good reader will also suffice with regard to the material knowledge; yet then in connection with the reader, instruction in geography may be made more lively by the use of maps, and may more apply to the self action of the children."

As to *history*, the chief reliance must likewise be laid on the reader. The new readers contain already no longer "history," but simply "pictures" from the history of the fatherland and particularly of Prussia, (vaterlandskunde.)

As to *grammar*, the regulatives "exclude from the elementary school separate instruction in the same," and say that theoretical knowledge is not required from children. Thus Kellner's analytical method, in which grammatical instruction has the *Reader* as its centre, will become the general one. (K. is a province school counselor in Prussia, and the reviewer of the grammatical part in Nacke's pedagogical Jahresbericht.) [Kellner says: If grammar can not be entirely excluded from our common schools, it must however not occupy the first place or give exclusively form and contents to the instruction in the mother tongue; but it has to serve simply as a means for easier understanding, and to give those few rules and principles which are indispensable as basis of the practical abilities, i. e., reading and writing. Instruction in the vernacular language has to lean upon nature and the natural development of the faculty of speaking, and must aim at teaching language by immediate use and intercourse, and principally at arousing and confining by the same taste, "sprachgefühl," (literally the feeling of language, i. e., the immediate perception of what is right and proper.)]

The aim of instruction in the *normal schools* is to be the "education and ability required from the teacher of a common elementary school of one class." Included is a simple and futile instruction in "vaterlandskunde," limited to the boundaries of the elementary school, so, however, that the pupil teachers become masters of that branch in all respects. With this view the geographical contents of the Reader are to be attended to. "General history is no longer to be taught in normal schools, because the pupil teachers have not the necessary knowledge of other preparatory branches, nor the time sufficient for a thorough study. Therefore only the history of Germany shall be taught thoroughly and earnestly, with a particular regard for the history of Prussia, and for that of the province. Every where a regard for the history of civilization must prevail, and all must be done in a Christian spirit." The most necessary communications from

general history shall be "connected partly with the Bible, partly with German history in biographies of great men and events." Of course, it must be based on geography.

Whatever the regulatives contain with respect to religious instruction, in which they are very particular, is omitted here.

Prange, the reviewer of geography and history in the Pedagogical Jahresbericht, thinks that the results of this new system will be seen in the normal schools in half a dozen of years, but that it will take longer to observe them in the common schools.

The regulatives have found many adversaries, e. g., in Low's Monatsschrift, etc., but the most inimical is Diesterweg, who has published three pamphlets against them. Other regulatives of a similar import, i. e., for a stricter and more defined elementary instruction, have been given in Hesse-Cassel, Bavaria, Mecklenburg, Wurtemberg, Nassau, and may be expected throughout Germany.

PLAN OF LESSONS IN GYMNASIA OR CLASSICAL SCHOOLS.—A late decree of the Prussian government in relation to schools fixes the following plan of lessons for gymnasia:

CLASSES.	I.	II.	III.	IV.	V.	VI.
Religion, (weekly,)	2	2	2	2	3	3
German,	3	2	2	2	2	2
Latin,	8	10	10	10	10	10
Greek,	6	6	6	6	—	—
French,	2	2	2	2	3	—
History and geography,	3	3	3	3	2	2
Mathematics,	4	4	3	3	3	4
Natural philosophy,	2	1	—	—	—	—
Natural history,	—	—	2	—	(2)	(2)
Drawing,	—	—	—	2	2	2
Writing,	—	—	—	—	3	3
Total hours per week,	30	30	30	30	30	28

"As instruction in Hebrew, singing and gymnastics, is given out of the ordinary school hours, those lessons are not included in the above plan." "Dispensation from studying Greek is only allowed in towns where there is no higher burgher or real school; since in such a case the gymnasium must serve general purposes. Such pupils are, however, to be notified that a knowledge of Greek is indispensable for passing the examination for admission to the university, (*Abiturienten-examen.*") "Natural history is to be taught in classes V. and VI., only when there is a very able teacher for it." "In other cases geography may be taught instead, with as much natural history introduced as possible. The same is permissible in class IV."

Another decree, (April 10, 1856,) recommends to the principal of the higher burgher schools a more frequent and methodical learning of words, not alphabetically, but according to analogy. If the pupils are not advanced enough to be introduced formally into etymological studies, they should receive instruction orally in the derivation of words.

REFORM OF THE NORMAL SCHOOLS.—The government has determined on a reform in the normal schools, and has called on the provincial school counselors to take the advice of the most distinguished principals of real schools on some of the points.

EDUCATIONAL EXPENDITURES FOR 1856.

Permanent Expenses.

For Ministry* of Public Instruction and Worship,.....	98,000	thalers.
" Provincial† school boards,.....	58,478	"
" Universities,.....	478,990	"
" Gymnasia and real schools,.....	312,060	"
" Elementary schools,.....	418,226	"
" Arts and sciences,.....	185,345	"
" Improving condition of teachers, ...	174,978	"
" Aid in building schools and churches,.....	194,762	"
" Consistories of church and school,.....	54,920	"

Extraordinary Expenses in 1856.

For special grants to teachers in gymnasia,.....	10,000	thalers.
" " " common schools,...	35,000	"
" " poor artists and scholars,.....	1,000	"
" " new buildings, (gymnasia,)....	44,000	"
" " teachers' seminaries,.....	53,800	"
" " orphans,.....	50,000	"
" " building,.....	250,000	"

Total expenditure by department, (about $3,123,040,) 4,123,119 thalers.

In the expenditures for arts and sciences, are included the sum of 22,821 thalers for the *Royal Academy of Sciences;* 24,813 thalers for the *Royal Library;* 20,350 thalers for the *Architectural Academy;* 42,800 thalers for the *Institute of Engineers;* 14,138 thalers for the Agricultural and Horticultural Academies.

EDUCATIONAL STATISTICS FOR 1856–57.

UNIVERSITIES.—There are 7 universities, with 5,741 students, in the winter term of 1856–7, viz.: 1,543 in (993 Evangelical and 650 Catholic,) theology; 1,422 in law; 736 in medicine; 1,118 in philosophy, and 822 in other departments.

GYMNASIA.—There are 128 gymnasia, and 27 pro-gymnasia, with 37,000 students, recognized and aided by the government, besides a number of private institutions of nearly the same grade of instruction.

REAL SCHOOLS.—There are 71 real schools, with 20,931 pupils, supported mainly by tuition, besides a large number of burgher, or public high schools, in the large towns and cities, aided by municipal grants. Several of the real schools are large, and crowded beyond the accommodation provided. The first school of this class in Berlin, was established by Hecker, in 1747, and exists in association with the Royal Frederick Wilhelm Gymnasium. One in Berlin, which was opened in 1852, with 18 scholars in 3 classes, has 790 pupils in 16 classes, under 23 teachers. Another, opened in 1832, with 63 pupils in 3 classes, has now 600 pupils in 13 classes, and 20 teachers. Most of the real schools have risen by the side of a gymnasium, and have the same principal. In some cases they occupy the same building, and have parallel courses of study. Fifty-two of this class of schools have a right to graduate scholars for admission to the higher schools of science and art, such as the Academy of Architecture, and the School of Engineers. Their pupils of the second class, if fit for the first,

* Minister Friedrich von Raumer, and a council of ten members.

† Each, (7,) province has a school board, consisting of the president of the province, a director of the scholastic department, and 3 to 5 school counselors. Each province is divided into 2 to 5 government districts, with a small board of counselors.

are admitted one year in the military service; (often have to serve three years.)

HIGHER BURGHER SCHOOLS.—There are over one hundred of the town high schools, which belong to the system of primary instruction, although they rank in some respects with institutions of secondary instruction. There are about 15,000 pupils in these schools.

PRIMARY SCHOOLS.—There are about, (we have not the last tables before us,) 25,000 primary schools, with 34,000 teachers, and 2,500,000 pupils.

NORMAL SCHOOLS, OR TEACHERS' SEMINARIES.—There are 46 normal schools, for the preparation of teachers for the public primary schools, besides 3 schools for the training of female teachers, and for governesses.

SCHOOLS OF SCIENCE AND ART.—Besides 24 provincial schools of art, there are the *Institute of Arts* in Berlin; an *Architectural Academy*, with 11 professors, and two courses each of two years; an *Institute for Engineers*, with two classes, and 14 professors; two *Agricultural Academies* at Eldena and Missan; one *Horticultural Academy* at Potsdam.

SPECIAL SCHOOLS FOR THE BLIND, DEAF-MUTES, IDIOTS, ORPHANS, JUVENILE DELINQUENTS, &c.—There are twenty-three institutions for deaf-mutes, eight for the blind, one for idiots or feeble-minded children, fifty for orphans, seventy-one, (small family schools,) for vagrant and criminal children, a large number of "children's gardens" for very young children of poor families, where the mother is obliged to go out to work during the day.

SUPPLEMENTARY SCHOOLS.—There are in the principal towns a large number of supplementary schools, (*fortbildungs-anstalten*,) to continue the education of the schools into adult life. In three schools of this class in Berlin, there were 1,159 pupils. Among them were 7 master workmen, 162 journeymen, 595 apprentices, 151 merchants, and 191 artists. These schools are maintained by a small charge on each pupil.

TEACHERS OF GYMNASTICS.—Female teachers of gymnastics have henceforth to pass an examination before a board, consisting of a school counselor, of the principal of the Central School of Gymnastics in Berlin, and of a physician.

PROTESTANT FEMALE SEMINARY IN DROYSSIG.—In 1852 a seminary, founded by Prince Schönberg, was opened with one course of instruction extending over two years, open to forty females, between the ages of seventeen and twenty-five years, who wish to prepare themselves for teachers in public schools; and, another course, of the same extent, for same number, not under eighteen years of age, wishing to become governesses. Board and tuition for the former amount to less than forty-five dollars; and, for the latter, less than seventy-five dollars per year. There is a boarding school, for girls of the wealthier classes, connected with the seminary.

HIGHER GIRLS' SCHOOLS.—There are 135 high schools for girls, corresponding to the real schools, or burgher schools, for boys, in Prussia. With three of these schools there are courses of instruction for females who wish to prepare for teaching.

SCHOOL FOR GOVERNESSES IN BERLIN.—Connected with the Louisenschule, opened in 1811, there is a class for the gratuitous instruction of nine females to become teachers, and of nine more to be trained as nurses.

HOLSTEIN.

Real School in Rendsburg.—The pupils of the lower classes, (IV., V., VI.,) are prepared for the proper real school, or for the gymnasium, (classical school,) hence in IV., two lessons in Greek.

	Class. I.	Class. II.	Class. III.	Lower Classes. IV.	V.	VI.
Religion,	2	2	2	3	4	4
German,	3	2	2	2	4	4
Danish,	2	2	2	2	—	—
French,	3	4	4	2	2	—
English,	3	4	3	2	2	—
Latin,	2	2	2	6	6	6
Greek,	—	—	—	2	—	—
Mathematics,	6	4	4	2	—	—
Arithmetic,	—	1	2	3	5	5
Natural Science,	5	5	4	2	2	2
Geography,	1	1	1	4	4	5
History,	3	3	3			
Writing,	—	—	1	2	2	3
Drawing,	2	2	2	2	1	1

Singing taught 4 hours, and *gymnastics* four hours; in all 12 teachers.

HANOVER.

PLAN OF LESSONS IN PUBLIC HIGH SCHOOL FOR GIRLS IN HANOVER.—14 teachers, (4 females,)—192 pupils, distributed in eight classes.

CLASS.	VIII.	VII.	VI.	V.	IV.	III.	II.	I.
Number of pupils,	26	28	37	35	35	34	19	18
Average age,	7¾	9¼	10¼	12	12¾	14	15	16
Religion,	2	4	4	4	3	3	3	3
German Language,	6	6	5	5	5	5	3	3
German Literature,	—	—	—	—	—	—	2	2
French Language,	—	—	4	4	3	3	4	4
English Language,	—	—	—	—	3	3	4	4
History,	—	—	2	2	2	2	2	2
Geography,	—	—	—	2	2	2	2	2
Observation,	—	—	—	—	—	—	2	2
Natural History,	—	—	2	2	2	2	—	—
Natural Philosophy,	—	2	—	—	—	—	2	—
Arithmetic,	4	4	4	3	2	2	2	2
Writing,	4	4	4	2	2	2	—	2
Drawing,	—	—	—	2	2	2	2	2
Singing,	—	—	—	2	2	2	2	2
Needle Work,	4	4	4	4	4	4	4	4

REAL SCHOOLS.—There is but one real school in the capital; the Chambers making an annual grant of 13,000 thalers for its support. But, in order to advance "real" or scientific studies, twenty-five real teachers were assigned to the gymnasia; and, in fourteen of these institutions, parallel real classes were organized. In four gymnasia the real scholars are separated in the fourth year, and in six they are separated only in certain studies. The number of real scholars has increased, and in fourteen gymnasia they exceed the classical pupils; making it necessary to convert the pro-gymnasia into higher burgher schools.

WEIMAR.

STATISTICS.—In the Grand Duchy of Weimar there are 571 public schools, with 841 teachers, and 44,030 pupils; besides 55 private schools, with 31 teachers. The gymnasium in Weimar has 191, and that at Eisenach 84 pupils.

SAXONY.

REAL SCHOOLS.—In Saxony there are but 3 or 4 real schools; although, in Plauen and Zittau, there are parallel* real classes joined to the gymnasium, (classes. II. III. and IV.)—in which—

Latin is taught in 3 to 4 hours.
French taught in 4 hours.
English taught in 3 hours.
Mathematics taught in 4 hours.
Arithmetic taught in 1 to 2 hours.
Natural Philosophy in II. and III. in 2 hours.
Chemistry in II. in 2 hours.
Natural History in 1 to 2 hours.
Drawing in 4, (in II., i. e., the highest optional.)
Geometrical Drawing in 2 to 5, (in II. and III.)
German in 3 to 4 hours.
History in 6 hours.
Geography in 2 hours.
Religion in 2 hours.

PUBLIC EXAMINATION AT DRESDEN, (Oct. 27th, 1856,) OF TEACHERS APPOINTED TO ANOTHER PLACE.—The Committee consisted of a Counselor of the Consistory, as Chairman, the Principal of a Teachers' Seminary, and of a Burgher School in Dresden.

1. WRITTEN EXAMINATION.—8–12 O'CLOCK.

a. Pedagogical Composition: what shall we think of giving particular laws to be obeyed by the children in school, and with regard to school?

b. 4 *Arithmetical Problems:* 1. $1\frac{5}{12}$ cwt. were lost of 7 cwt. 31 lbs. 13 ounces, $2\frac{6}{7}$ drams; if the loss amounts to $31\frac{1}{2}$ thalers, what was the whole worth? 2. To fill the space of a cubic mile, (1 mile, 24,000 feet,) with bricks, each 1 f. long and $\frac{1}{2}$ foot broad, 1000 laborers want 6,400 years, if they work 300 days a year, 12 hours a day, and if each laborer lays one brick in a second; how thick is such a brick? 3. A man had to pay for several ducats bought, $9\frac{1}{8}\frac{1}{4}$ agio, $32\frac{1}{2}$ thalers; what was the value of a ducat, when he afterward gave them away for 33 thalers, $22\frac{1}{2}$ ngr. (30 ngr. equals 1 thaler.) 4. A. had to pay B. 300 thalers, after 3 months, and 1,500 thalers, later; the whole, however, was paid after 10 months, without loss for either party, what time were the 1,500 thalers to be paid?

2. PRACTICAL EXAMINATION.—3–4.

The (4) examiners, one after the other, catechised on Psalm 143, 2; Ps. 143, 5; Ps. 143, 6; Ps. 143, 10.

3. ORAL EXAMINATION.

1. *Dogmatic.* How the narrative of *Moses' birth* is to be treated in school, and what *precepts*, according to the different ages of the children, can be drawn from it?

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*The "Hohere Burgerschule" is not satisfied with such *parallel* classes in gymnasia, but requires independent schools, on an entirely separate plan.

The following is the plan of lessons in *languages* as required by Mager the late editor of the "Pedagogical Revue," for a real gymnasia:

	Lower.		Middle.		Upper Classes.	
	VI.	V.	IV.	III.	II.	I.
German	6	6	5	5	4	3
French	6	7	6	6	4	3
English	—	7	6	6	4	3

2. The written compositions and the catechisations are criticised.

3. *Psychology.* What is the soul? Whence does it appear that the soul has faculties? Tell the chief faculties of the soul, and their formations, (representations,) ideas, desires, sentiments, etc.

4. *Geography.* Africa.—Its situation with regard to the other parts of the globe, to the zones, and its boundaries? Countries of Africa?

5. *History.* What has happened in Africa? More particularly with regard to Egypt, Carthage,—the Punic wars, etc.?

6. Criticism of the arithmetical papers.

SCHOOL OF MODERN LANGUAGES.—The *Modern Gymnasium*, (private,) at Leipzig, was conducted by its late director, Hauschild, (now Superintendent of the evangelical schools of Brunn,) on the following principles of instruction:

1. The easier languages first. (Genetical method.)

2. Each language, at commencing it, pursued in a measure by itself; or at least, with from ten to twelve hours a week, of instruction. (Concentrating method.)

3. Progress according to the pupil's ability. (Calculating method.)

4. Intuitive instruction. (Pestalozzian method.)

5. Associating geography and history. (Vogel's method.)

According to these principles, the boy passes from the elementary into the German school, (because he is a German boy.) When ten years old, he advances to the English school, and in his twelfth year, to the French.* When fourteen years old, he enters the gymnasium, or real school.

THE SCHOOL OF FORESTRY AND AGRICULTURE, at Tharand, near Dresden, contains, (1857,) in the former department, 26 Saxon and 27 foreign pupils; in the latter, 18 Saxon and 42 foreign. Among these foreigners are 3 Hungarians, 1 Transylvanian, 2 Servians, 1 Galician, 1 Spaniard, 2 Swiss, 4 Norwegians, 2 Russians, and 2 Americans.

TEACHERS' MUTUAL AID SOCIETY.—The Association of Saxon Teachers, for mutual help in sickness, embracing 1,575 members, report for 1855, that 130 members had been assisted during the year out of the funds of the Association, which is made up by a small annual rate on each member, according to his salary.

GYMNASTICS.—In the burgher schools of Leipzig, the pupils receive systematic instruction in gymnastics.

COMMERCIAL SCHOOLS.—The Commercial School in Dresden, founded in 1854, by the Merchants' Association, has 185 pupils, divided into two sections; one for the mercantile apprentices, who are obliged to attend for two years, and has 7 teachers. There is a similar school at Leipzig, and another in Nuremberg, with 329 pupils.

THE PESTALOZZIAN ASSOCIATION in Saxony has 2,486 members, and gave assistance last year to 244 orphan children of teachers, in 117 families.

PLAN OF STUDIES IN THE ROYAL INDUSTRIAL SCHOOL, (*Gewerbschule,*) AT CHEMNITZ, SAXONY.

This Industrial School ranks higher than any other school of that name, and is very nearly a Polytechnic Institute. We have heard but one complaint, viz.: that

* In Gutbier's private school in Munich the boys pass from German into Italian, then into the French, and finally into the English school.

the pupils, from 14 years of age upward, had too much work; they have to take notes in their many lessons, and have to work them all out neatly and accurately. The following plan is taken from the programme of 1857, preceded, as usual, in the schools of a higher grade, by a treatise—this time on German orthography.

Section A comprises those pupils who are preparing for a trade in which machines of complicated construction are used, and who pass through a course of four years. A a, comprises such as are preparing for a mechanical branch, *e. g.*, construction of machines, spinning establishments etc.; A b, such as prepare for a chemical branch, *e. g.*, manufacturing sugar, porcelain, etc.

Section B comprises pupils who prepare for a trade chiefly chemical, and without complicated machinery; and who, therefore, do not receive the instruction in mechanics and machine building; and who remain but three years; *e. g.*, future dyers, soap-boilers, tanners, etc.

Section C comprises such as prepare for agriculture; and who also stay three years.

CLASS IV.

1. *Arithmetic:* 6 lessons a week, with Tellkamp's *Vorschule der mathematik. Special Arithmetic:* formation of numbers, numeral systems, whole numbers, fractions, geometrical proportions, reduction. The four rules, application of geometrical proportions, rule of three, etc. etc. *General Arithmetic:* the four rules with letters, involution and evolution, algebraics, fractions, simple equations, problems.

2. *Geometry:* 4 hours; lines, angles, triangles, rectangles, polygons, sequents, tangents, circles, similarity of triangles, of polygons, lines in and on the circles, area of regular polygons and of circles, equality and proportion of surfaces, contents of figures.

3. *Natural Philosophy:* 4 hours, with Müller's text-book. General introduction, outlines of astronomy, physical geography, climatology, doctrine of heat, magnetism and electricity.

4. *Natural History:* 4 hours; in summer, botany with particular regard to such plants as are important for common use; outlines of the physiology of plants. In winter, zoölogy with outlines of anatomy and animal physiology.

5. *Drawing:* 6 hours; from geometrical bodies, plaster models, etc., after Dupuis' method; with pencil or chalk, chiefly in colors.

6. *Geometrical Drawing:* 4 hours; plane drawing, on a given scale, of bodies between two planes of projection in different position, single or combined; construction of screws,—always connected with exercises in painting with Indian ink.

7. *German Language:* 4 hours; with Götsinger's grammar. In IV., b, 2 lessons for orthographical and stylistical exercises, 1 for oral exercises, and 1 for grammar. In IV., a, where the admitted pupils are better prepared in this respect, 2 lessons in grammar, 1 oral and 1 for composition.

CLASS III.

a. Studies common to all pupils of this class.

8. *Arithmetic:* 4 hours; equations with several unknown quantities, diophantine problems, equations of the second degree, logarithms, logarithmic equations, arithmetrical and geometrical progression, interest on interest, &c.

9. *Geometry:* 4 hours; stereometry, plain trigonometry, application of algebra to geometry.

10. *Mercantile Arithmetic:* 2 hours for denomination C. of pupils, only in winter.

11. *Natural Philosophy:* 3 hours; acoustics, optics; solid, liquid and aerial bodies.

12. *General Chemistry:* 5 hours; inorganic chemistry, chemical elements, etc. Organic chemistry; the more important vegetable and animal matter, as fibre, starch, sugar, organic acids and bases, oils, colors, bones, flesh, blood, milk, etc., and their products of decomposition, (fermentation, distillation, etc.,) their

* Chemnitz has a population of about 50,000 inhabitants, and is the chief manufacturing town of Saxony.

qualities, production and use; their relation to living vegetables and animal bodies.

13. *Architecture:* 2 hours; the fundamental rules for all classes of architecture; principal combinations; chief parts of buildings, their laying out and proportion; construction of ovens, tile-kilns, lime-kilns, malt-kilns, etc.

14. *German:* 4 hours; two hours in grammar, two in oral and written exercises, alternating with reading of dramatical pieces. The less advanced pupils have two more lessons in spelling and reading.

b. For Section A.

15. *Doctrine of Projection:* 5 hours; Projection of simple lines, planes and bodies, etc., etc.

16. *Practical Geometry* and

17. *Drawing of Plans*, (*planzeichnen:*) in summer, one afternoon, practical exercises in surveying; in winter, two lessons in practical geometry, and two in drawing plans.

18. *Drawing:* 4 hours, as in class IV., but with the addition of light and shade.

Besides, A b, has four lessons in No. 21, with the omission or diminution of No. 18.

c. For Section B.

19. *Mechanical Technology:* 2 hours; with Karmarsch's text-book.

20. *Mineralogy* and *Geognosy:* 2 hours; the former in summer; the latter in winter, both with especial regard to agriculture and trade.

21. *Practical Exercises in Chemistry:* 8 hours, in winter.

The pupils of this section also attend, in summer, No. 18. Nos. 16 and 17 are optional for them.

d. For Section C.

22. *Cattle Breeding:* 2 hours; General portion, anatomical and physiological introduction, hygiene, breeding and feeding.

23. *Nursing of Plants:* 2 hours, in summer; General portion; influence of climate and soil on the development of cultivated plants; raising, propagating and diseases of plants; means of cultivating, sowing, nursing, gathering and preserving.

Besides, the pupils of this section have in summer two lessons in No. 18, the excursions No. 40, Nos. 16, 17, 20, and, if sufficiently prepared, No. 21 for two hours in winter.

CLASS II.

a. In common.

24. *German:* 4 hours; two lessons in German literature; two oral and written exercises, reporting, etc.

25. *Architectural Drawing:* 2 hours; for sections B and C only in one half year. Drawing of architectural details, copying and sketching of plans.

b. For section A.

26. *Analysis:* 4 hours; for A b, only in summer. Figured numbers, higher arithmetical series, equations of the third degree, combination, quadration of functions (?); binomial, exponential, logarithmetrical, goniometrical, and cyclometrical series, Taylor's series, value of 0-0, greatest and least value of the functions, methods of the least squares.

27. *Spherical Trigonometry* and *Analytical Geometry of the places:* 3 hours; only for A a.

28. *Mechanics:* 5 hours.

29. *Drawing of Machines:* in summer 6, in winter 4 hours

30. *Descriptive Geometry:* 3 hours; only for A a.

31. *Drawing:* 4 hours; partly from plaster models, partly from copies. Besides, A attends 19, and A b also 20. Moreover, A a partakes in 2 weekly lessons, A C in 6 of technical chemistry, (No. 32.) A C, with diminution of No. 29, and possible omission of No. 31, attends the exercises of No. 33.

c. For Section B.

32. *Technical Chemistry:* 6 hours; review of all chemistry. It is chiefly intended to fix and enlarge the chemical knowledge and judgment in all directions; at the same time every thing important for application is prominently considered,

and a representation given of the important chemical manufactures, and of those trades which are based on chemical principles—this being included in the exposition of the reflective elements, *e. g.*, the manufacturing of clay ware, in speaking of clay, etc. Moreover the principal merchandises and products are here spoken of as fuel, coloring matter, food, etc.

33. ***Practical Exercises in Chemistry:*** 8—12 hours, as in III. Besides, the pupils of this section attend 19, and optional 29 and 31; and also, if it appears advantageous for them, 12 and 20.

d. For Section C.

34. Doctrine of ***soil and manure:*** 2 hours; the various circumstances that influence the soil, classification of soil according to the Saxon mode of valuation, natural and artificial sorts of manure, their effect and application.

35. Nursing of ***plants:*** in summer 3, in winter 2 hours. Especial part: culture of useful plants, including meadows, vines and orchards, with a short sketch of forestry.

36. ***Cattle Breeding:*** 2 hours; especial part: cattle, horse, sheep breeding, and with less details, that of goats, fowls, fish, silk-worms and bees.

37. ***Agricultural Machines:*** 2 hours.

38. ***Farming:*** 3 hours; in general; requisites of farming, organization and management of a farm, Agricultural book-keeping, Agricultural valuation.

39. ***Agricultural Architecture:*** 1 hour, in winter, regarding the buildings, barns, stables, etc.

40. Agricultural ***excursions***, in company of a teacher, and ***experiments*** of ***cultivation*** in the fields and gardens of the establishment. Time not fixed.

41. ***Knowledge of Machines*** and ***Technology:*** 4 hours; in summer, description of the chief motors and parts of machines, and of the manufacturing of wood and iron.

42. ***Agricultural Chemistry:*** 4 hours; in winter.

Besides, the pupils of this section attend 29 two hours a week; especially for drawing agricultural utensils and machines; No. 16 and optionally 17; No. 33 in summer four times, in winter 4—8 times, and No. 32 for three hours.

I. CLASS—SECTION A.

43. Knowledge of ***Machines:*** 8 hours.

44. ***Drawing of Machines:*** 8 hours for A a, 4 for A b.

45. ***Mathematics:*** 3 hours only for A a. Theory of higher equations, analytical geometry of space.

46. ***Perspective:*** 2 hours only for A a. Perspective representation of points, lines, plains and bodies, with the shade of the sun and of lamps, etc.

Mineralogy and Geognosy, (No 20,) only for A a.

Technical Chemistry, (32,) A a; 2 hours in summer. The pupils of A b, have finished it in the second class.

47. ***Analytical*** and ***Theoretical Chemistry:*** 3 hours; only for A b. The qualitative analysis reviewed and completed, the quantitative analysis of weight and volume treated more accurately, weight of atoms, their relations to crystal forms, to volume and specific weight, etc.

Practical exercises in chemistry, (33,) A b, in 12 hours; A a, 2—4 hours in summer, 4 hours in winter.

The pupils of this class attend German, (24,) 2 hours, 19, 25, (in summer,) and 31, (in general only A a, 2 hours,) and optionally, No. 16.

Besides, all the pupils of the school have opportunity to learn,

48–51. ***French***, in four classes, 3 hours a week. The pupils are admitted to that class for which each of them is fit.

52–54. ***English:*** in three classes; 3 hours.

55. ***Commercial Book-keeping*** and ***correspondence:*** 3 hours.

56. ***Embossing*** in clay, one afternoon in every week.

57. ***History*** and ***Geography:*** in IV., 4 hours, which all pupils not sufficiently advanced in those branches ***must*** attend.

58–59. ***Manufacturing Drawing***, (fabrikzeichnen,) neat, destined for such as work at Chemnitz in manufacturing establishments, but which may be attended also by proper pupils of the Gewerbeschule, 4 hours in the evening, in two sections. In the lower, (11 pupils with three of the middle school,) drawing in general is taught; in the upper, (41 p.,) the pupils are practiced in drawing or sketching of ornaments concerning their particular trade, etc.

Besides, the principal, Professor Schnedermann, (teacher of chemistry,) there are 16 teachers, three of whom bear the title, professor.

In I there are 9 pupils for the full course—4 for single branches.
" II " 37 " " 5 "
" III " 65 " " 6 "
" IV a " 42 and in IV b 40.

With the Gewerbschule, is joined what is called, BAUGEWERKENSCHULE, *i. e.* a school for carpenters and masons, (journeymen,) lower class : 29 pupils.

Arithmetic : 6 hours from the first rules as far as quadratic equations.

Geometry, 4 hours ; *General Architecture*, 8 hours ; Lineal and ornamental *Drawing*, 4 hours ; Doctrine of *Projection*, 4 hours ; *German*, 3 hours. Upper Class, 31 pupils.

Mechanical Physic, 6 hours, with particular attention to architecture. Doctrine of *construction*, 6 hours ; *Sketches of Architectural Plans*, 4 hours ; *Modeling*, 6 hours ; *Embossing*, 4 hours ; *Drawing*, 4 hours ; *Perspective*, 2 hours ; *German*, 2 hours.

and a so-called

Mechanische Baugewerken and Werkmeister schule.

Third class : 18 pupils ; (Miller's machine builders, locksmiths, etc., journeymen.) *Arithmetic*, 6 hours ; *Geometry*, 4 hours ; *German*, 3 hours ; *Drawing*, 4 hours ; *Geometrical Drawing*, 8 hours ; *Natural Philosophy*, 4 hours.

Second class : 17 pupils.

Mathematics and Mechanics, 12 hours ; *Machine Drawing*, 8 hours ; *Surveying*, 4 hours ; *Mechanical Technology*, 4 hours ; *Model Drawing*, 4 hours ; *German*, 3 hours.

First class : 13 pupils.

Machines, 8 hours ; *Mechanical Drawing*, 8 hours ; *a*, *construction of rails*, 4 hours for railing ; *b*, *spinning and weaving*, each in 4 hours ; *c*, construction of *pipes and wells*, 4 hours ; *Drawing*, 4 hours ; *Embossing*, 4 hours ; *Model Drawing*, 4 hours ; *Book-keeping*, 2 hours.

SUNDAY SCHOOL IN CHEMNITZ.—There is a Sunday school in this large manufacturing city, with 1284 students, arranged in 40 classes, viz.:

13	classes in	Drawing,	with	440	pupils,
10	"	Writing,	"	396	"
4	"	Writing,	"	121	"
2	"	Reading,	"	48	"
1	"	Natural Philosophy,	"	20	"
3	"	Composition,	"	110	"
1	"	History,	"	25	"
1	"	Geography,	"	25	"
1	"	Book-keeping,	"	34	"
1	"	English Language,	"	12	"
2	"	French Language,	"	23	"
1	"	Stenography,	"	30	"

The expenses of the school amounted in 1856 to 1.500 thalers.

NEW REGULATIONS RESPECTING NORMAL SCHOOLS.—The department of public instruction has issued new regulations for the normal schools, in the same general spirit of the Prussian regulations, but not quite so conservative.

HONOR TO A SUCCESSFUL TEACHER.—Dr. Georgi, director of the Institution for the Blind in Dresden, has been presented with the Danebrog order, by the King of Denmark—the institution with that at Paris having been reported as the best in Europe, by a commission appointed to examine all in different countries.

BURGHER SCHOOL AT LEIPSIC.—This school embraces in its organization two burgher schools, and a real school, under Dr. Vogel as principal, assisted by one vice-principal, 70 male and 8 female assistants. In 1800 there were 2511 pupils in 53 classes. The real school had 174 pupils, under 12 teachers, and two " candidates," as assistants. These candidates, have passed favorably their examination as teachers in high schools, and are now teaching for one year on trial before they can be appointed to a place as principal.

AUSTRIA.

EMPLOYMENT OF CHILDREN IN PUBLIC EXHIBITIONS.—Children have been forbidden to be employed in theatres and other public exhibitions. Several decrees from the ministry of instruction indicate educational progress, especially in the real schools.

GALICIA, with a population of 5,100,000, has more than 3000 common schools, 67 higher schools, 55 institutes, and 62 charity schools.

THE TYROL contains 1030 German, and 812 Italian schools.

HUNGARY contains 8,190 common schools; of which 3,500 are Magyar, 2,600 Slavonic, 900 German, 240 Romanic, and 950 mixed. Much is being done to improve the school system, particularly by the establishment of new schools for girls.

PESTH has a complete real school of six classes, and also a school fund of $70,000.

BAVARIA.

The Public Real Schools of Nuremberg consist of,—1. A provincial industrial school, with 163 pupils; 2. An agricultural school, with 93 scholars; 3. A polytechnic school, with 200 students; 4. A city commercial school, with 300 pupils; 5. The royal school of arts.

INFANT SCHOOLS IN MUNICH.—There are five infant schools, (besides two in the suburbs,) attended by 780 children, who are educated and fed.

A SCHOOL OF HISTORY has been attached to the University of Munich, under the direction of Prof. Sybel.

FRANCE.

CITY SCHOOLS IN PARIS.—There are in Paris 277 city schools, with 50,542 pupils, supported at an annual expense of 1,323,400 francs.

FRANKFORT-ON-THE-MAINE.

STATISTICS.—Frankfort has 1 gymnasium; 7 protestant, 4 catholic, and 2 Israelitish public schools; 38 private schools; 3 infant schools; a school for the deaf and dumb, and another for the blind.

BADEN.

GYMNASIA AND REAL SCHOOLS.—There are in the Grand Duchy, out of a population of 1,356,953, 1,074 pupils in the gymnasia, and 1,872 in the real schools. The real school of Heidelberg has 14 teachers and 219 pupils, of whom only six are in the highest class.

HAMBURG.

KINDERGARTEN.—Doris Lütken, a pupil of Froebel, has a *kindergärten*, in two sections: I. For children of from three to six years, who come at 10 A. M. and remain until 2; and, II. A transitory class, for children of from six to eight. There are two courses: the first in learning to read; the second lasts to the eighth year, when the boys graduate, and the girls enter the school of the institution. Lessons in this second course: Monday, 9–11, stories from history, and writing; 11, singing and plays; 12, dinner; 1, reading; 2, handiwork. Tuesday, 9–11, drawing, writing, and arithmetic; 11, gymnastics and plays; 1, reading. Wednesday, 9–12, geography, writing, paper-work, and plays; 1, reading. Thursday, as Monday; together with biblical narratives. Friday, as Tuesday. Saturday, as Wednesday, with natural history.

There are four other public *kindergärten* in the city. Elsewhere public *crèches* are very rare.

Tuition and board, at Keilhan, (institution of Mesdames Froebel and Middendorf for young ladies,) one hundred thalers for six months, one hundred and eighty for a year.

GRAND DUCHY OF HESSE.

NORMAL SCHOOL FOR JEWISH TEACHERS.—An association has just been formed for erecting a Jewish normal school.

ITEMS.

THE NINTH GENERAL ASSEMBLY OF GERMAN TEACHERS, convened this year in Frankfort, on the 3d, 4th, and 5th of June, was attended by 422 teachers, 212 of whom were from Frankfort, and most of the rest from the neighboring states; the two Hesse, 83; Nassau, 50; Baden, 9; Bavaria, 9; Austria, 4; Saxony, 1; Wurtemberg, 6; Thuringia, (the Saxon duchies,) 12; Waldeck, 4; Hanover, 1; Brunswick, 2; Oldenburg, 2; Coethen, 1; Lübeck, 2; Hamburg, 4; and 13 from places in Germany not named. There were also in attendance, 1 from England, 2 from France, 1 from Switzerland, and 1 from Sweden. Lanckhard of Weimar, the editor of the "Reform," (the new educational quarterly,) was in the chair. A discourse of Director Frohlich of Berne, on the homesickness of Germans in Switzerland, on their educational propaganda, and on the institutions of learning in that country, seems to have excited the greatest and most general interest. Lanckhard also spoke on instruction in drawing. No debates. Next year the assembly will convene in Weimar.

SCARCITY OF TEACHERS.—In Kiel, (*Holstein*,) teachers for the common schools are in such demand, that pupils in the "preparanden," (preparing for admission to the teachers' seminaries,) are employed. In the district of Potsdam, (*Prussia*,) the school authorities have been compelled, from the scarcity of teachers, to arrange a half-yearly seminary course for young men from 19 to 30 years of age. In some of the cantons of Switzerland, upwards of one hundred teachers have abandoned their schools for other vocations, on account of insufficient salaries.

DAILY AND YEARLY EXPENSES OF A SCHOOLMASTER.—The German School Gazette gives the following items of the expenses of a German schoolmaster, father of three little children, with a fixed income of $135.00, (180 thalers,) besides a house, (with three rooms,) and a small additional income as sexton:

Fuel,	$15.00	Charity,	$1.50
Clothing,	22.50	Postage,	2.25
Widow tax, (annuity for,)	1.50	Stationery,	2.25
Personal, "	.87½	Books,	3.00
Emeriti, " (for invalid teachers,)	.75	School tax,	1.50
Fire insurance,	1.50	Burial fund,	.87½
Communal tax,	.87½	Amusements,	3.00

Annual Expenses: Total, $57,37½

Daily expenses, (besides above,) × 365 = $113.15, viz.:

Bread,	$0.10	Sugar,	$0.00.5
Butter,	.02.5	Soap,	.00.8
Milk,	.01.25	Light,	.01.25
Dinner,	.12.5	Pocket money,	.01.25
Coffee,	.01.25	Total, Daily, about 32 cents.	

Total of Annual and Daily Expenses, $170.52½

EXPENSES IN ETON COLLEGE IN 1560.

AN ACCOUNT OF THE EXPENSES OF THE TWO BROTHERS, MR. HENRY AND MR. WILLIAM CAVENDISH, SONS OF SIR WILLIAM CAVENDISH, OF CHATSWORTH, KNIGHT, AT ETON COLLEGE, BEGINNING OCTOBER 21ST, 2D ELIZABETH, 1560. (From a contemporary manuscript.)

The following curious document, illustrative of the manners as well as of the schoolboy expenses of the time, is taken from the *Retrospective Review*, vol. xvi., p. 149.

Mondaie the xxi[st] of October.

In primis bread and beare	vid.	
Boylid mutton and pottage	vd.	
One breast rost mutton	xd.	iis. vd.
One lytull chekyn	iiiid.	
It. for fyre mornyng and evening in ther chamber ther	iiiid.	

Apud cenam duo filii Fraunc. Knolles milit. ibi fuerunt.

Tewsday xxii[d] of October.

It. for Thomas Folow dynner at the inne the same day		iiiid.

Note that M[r]. Henry and M[r]. W[m]. Cavendysh his brother, w[h] ther man, dyd begonne ther bord at one Ryc. Hilles the xxiii[d] day of October, and must pay for them twayne xs. and iiis. iiiid. for ther man wekely, over and besydes the woode burned in ther chamber.

It. the Frydaie the xxv[t] of the same p[d] for eight yardes black fryse at xxd. the yarde	xiiis.	
It. for the making of the same ii gownes		xvid.
It. the xxvii[t] day for ii qwere whyte paper		viiid.
It. rec. from M[r]. Fletwod ii yardes fryseado at viiis. the yard.		
It. p[d] for iiii yardes black cotton at viiid. the yard		iis. viiid.
It. for the makyng of ii fryseado coates		xxd.
It. for iiii duss. buttons to y[e] coates		xvid.
It. for iii yardes jane fustion		iiis.
It. for canvas to lyne the bodyes		viiid.
It. for iii yardes cotten to lyne the same dubletts		iis.
It. for sylk to styche the same dubletts and makyng lowpes for the holes		xiid.
It. for iiii duss. black sylk buttons for ther dublets		xvid.
It. for cotton wolle for the sleves		iiiid.
It. for makyng the same dubletts		xxd.
It. for ii yardes fyne carse [Kersey] at xld. the yard		vis. viiid.
It. for one yarde carse to lyne ther hose		xiiiid.
It. for ii yardes cotten to lyne the sloppes		xvid.
It. for one lynen clothe to lyne the same hose		xiid.
It. for one oz. di. [1½ ounce] sylk to styche the same hose		iis. vid.
It. for makyng the same hosen		iiis. iiiid.
It. p[d] for ii combes to my masters		iid.
It. for a breykfast for the cumpanye of formes in the scole according to the use of the scole		vid.
It. the xxix[t] for ii payr showes for M[r]. Henry and M[r]. W[m]. agaynst All Hallowtyde		xvid.
It. p[d] for the sawlyng of ther old showes		ixd.
It. p[d] for one payr of knyffes		vid.
It. p[d] for Lucian's Dialogues		iiid.
It. p[d] for ii penn[s] and cornetts		xd.
It. geven to a man to see bayre bayting and a camell in the colledge, as other schollers dyd		iiid.
It. p[d] for ii duss. threde poynts		vid.
It. p[d] for ii payr furred gloves w[t] strynges at them		vd.
It. for the Kynges Grammar It. Marcus Tullius Offic. It. Fabulæ Æsopi ii bokes of wax light	sent by M[r]. Fletwod.	
It. the xvi[t] day of November p[d] for carryage of the chamber stuff from the warff		iiiid.
It. p[d] for whyte and black threde		id.
It. to an old woman for swepyng and makyng cleane the chamber		iid.
It. p[d] for makyng a key		vid.
It. p[d] for xl tenter hokes to hang the chamber		iiiid.
It. p[d] for mendyng M[r]. Henry's showe		id.

It. the xxiiii[i] day of November p[d] for iii pound cottun candell . . . . ixd.
It. for iii loode wodde ii bylletts iiiis. viiid. and the iii fagot iiiis. . .
M[d] that M[r]. Henry and M[r]. W[m]. Cavendyah his brother, and ther s[r]vant, did begon ther bord in the colledge xxv[t] day of November, an[o] supradicto.
It. p[d] for eyght claspes and holders of ireons for my m[r] feld bedde . . xiid.
It. the xv[t] day of December for ii pond candell . . . . . vid.
It. the xx[t] day of December for ii qwere whyte papur for the gentlemen to write uppon . . . . . viiid.
It. p[d] for ii payr showes for M[r]. Henry and M[r]. W[m]. Canvendyah agaynst Chrystenmas . . . . . xviiid.
It. p[d] the xxi[i] of December for a cople say gyrdells . . . . . iiiid.
It. p[d] for one Isope Fabulls . . . . . iiiid.
It. p[d] to my oste Hyll for iiii wekes bord of M[r]. Henry and M[r]. W[m]. Cavendyah, and ther s[r]vaunt, endyng the xx[t] day of November . . iiiis. iiiid.
It. for quarterydge in penne and ynke, brome and byrche . . . . . vid.
It. p[d] the xx[t] of Januarie for ii pond candell . . . . . vid.
It. p[d] the xxvii[i] day of Januarie for ii payr showes for M[r]. Henry and M[r]. W[m]. Cavendyah . . . . . xvid.
It. p[d] the same day for one qwere whyte paper . . . . . iiiid.
It. p[d] the xv[t] day of Februarie for one pond candell . . . . . iiid.
It. p[d] for di. elne [half an ell] fyne holland to mend the gentlemen sherts w[t] xiid.
It. for di. elne course Holland to be lyning for ther collers . . . . . ixd.
It. for the woman's paynes in doyng the same eyght sherts . . . . . xiid.
It. the xi[i] day of M[r]che p[d] for ii qwere whyte paper . . . . . vd.
It. the xx[t] day of M[r]che for one pond candell . . . . . vid.
It. p[d] for neldes [probably needles] . . . . . ob.
It. p[d] for ii payr knytte hose for M[r]. Henry and M[r]. W[m]. Cavendyah . xxd.
It. p[d] for ii payr of showes agaynst Ester for M[r]. Henry and M[r]. W[m]. Cavendyah . . . . . xvid.
It. for ii duss. threde poynts for them . . . . . vid.
It. p[d] the last day of M[r]che for quarterydge, viz. byrche, brome, and ynke vid.
It. p[d] for tewe duss. black sylk bottens for mending the doubletts . . . vid.
It. p[d] the xx[t] day of Apryll for mendyng both ther showes . . . . . iiid.
It. p[d] the fyrst day of May for whyte threde and blak . . . . . id.
It. p[d] the xviii[i] of May for ii payr showes agaynst Wytsontyde for M[r]. Henry and M[r]. W[m]. . . . . xviid.
It. p[d] the vi[t] day of June for sawlyng of one of M[r]. Henry's showes . iiid.
It. p[d] for one qwere whyte papur the xii[t] of June . . . . . iiid.
It. p[d] the xxiii[i] of June for M[r]. Henry and M[r]. W[m]. ther quartorrydge, viz. byrch, brome, and potaticio, also lyght . . . . . xd.
It. p[d] to my oste Hyll, for one quarter comens endyng the xxii[i] of May xiiis. iiiid.
It. p[d] for my lytul masters washeng for the same quarter . . . . . iis. iiiid.
It. p[d] to the bursers of Eyton College for one quarter bord dew at the anunciation of our Lady last . . . . . iiili. xiis.
It. p[d] for one gyrdell to M[r]. W[m]. Cavendyah the iiii[t] of Julye . . . . iiid.
It. for mendyng both their showes . . . . . iid.
It. p[d] for ii payr showes for M[r]. Henry and M[r]. W[m]. his brother the xxvi[t] of Julye . . . . . xvid.
It. p[d] for a Tullies Attycum for M[r]. W[m]. . . . . iiid.
It. p[d] for one quere whyte papur . . . . . iiiid.
It. p[d] the xxviii[i] of September for one lb. candell . . . . . iid. ob.
It. p[d] for ii payr of showes for M[r]. Henry and M[r]. W[m]. his brother at Mychalmas . . . . . xvid.
It. for ther quarterydge in penne, ynke, byrche, and brome . . . . . vid.
It. p[d] the viii of October for sawling of ii payr of my lytull mayster's shoes . . . . . xiid.
It. p[d] the xx[t] day of October for ii bunches of wax lyghts . . . . . id.
It. p[d] xxiii of November for the bord of M[r]. Henry and M[r]. W[m]. and ther man for one moneth bord . . . . . xxiiiis.
It. to a carter to carry the stuff to the watersyde . . . . . iiiid.
It. to Frenche of Wyndsore for carryeng the stuff to London . . . . viis.

	l.	*s.*	*d.*
Summa totalis	xii.	xii.	viii.
By your ladyship at Eaton	iii.	xviii.	x.
By Mounsoule	ix.		
	Li.	*s.*	*d.*
Summa totalis of all the whol payments	xxv.	xi.	v.

XVII. CONTRIBUTIONS TO THE LITERATURE OF EDUCATION.

SCIENCE AND RELIGION. A Sermon delivered in Albany during the session of the American Association for the Advancement of Science, by Mark Hopkins, D. D. Albany. 1856. 52 pages.

RELIGIOUS BEARINGS OF MAN'S CREATION. A Discourse delivered in Albany during the session of the American Association for the Advancement of Science, by Edward Hitchcock, D. D., LL. D. 35 pages.

RELATIONS OF SCIENCE AND RELIGION. A Discourse delivered in Albany during the session of the American Association for the Advancement of Science, by Rt. Rev. J. H. Hopkins, D. D., LL. D. Albany. 1856. 30 pages.

HANDS: BRAIN: HEART. An Address delivered before the Mass. Charitable Mechanics Association, on occasion of the Eighth Exhibition, Sept. 24, 1856, by Rev. F. D. Huntington, D. D. Boston. 1856. 35 pages.

TRUANCY AND ABSENTEEISM. A Special Report of the Commissioner of Public Schools on Truancy and Absenteeism in Rhode Island, made by order of the General Assembly at its May session, Providence, 1856. 28 pages.

LIBERAL EDUCATION. An Address delivered before the Union Literary and Philalethean Societies of Hanover College, at the Annual Commencement, August, 1856, by James C. Moffat. Philadelphia. 1857. 24 pages.

THE WEST: ITS CULTURE AND ITS COLLEGES. An Oration delivered at the Annual Commencement of Iowa College, Davenport, Iowa, July, 1855, by George F. Magoun. Davenport. 1855. 34 pages.

RELIGION AND EDUCATION. An Oration delivered at the Commencement of Iowa College, Davenport, Iowa, 1856, by the Rt. Rev. Truman M. Post, D. D., of St. Louis. Davenport. 1856. 27 pages.

SOCIETY AND RELIGION. A Sermon for California, delivered on Sabbath evening, July 6, 1856, at the installation of Rev. E. S. Lacy, as Pastor of the First Congregational Church, San Francisco, by Horace Bushnell, D. D. Hartford L. E. Hunt. 1856. 32 pages.

INAUGURATION OF THE DUDLEY OBSERVATORY, at Albany, August 28, 1856 139 pages. Albany. 1856.

PROCEEDINGS AT THE RECEPTION AND DINNER IN HONOR OF GEORGE PEABODY, ESQ., of London, by the citizens of the old town of Danvers, Oct. 9, 1856; to which is appended an Address by Hon. Rufus Choate at the Dedication of the Peabody Institute, with the exercises at the laying of the Corner Stone. Boston. 1856. 195 pages.

DOES THE COMMON SCHOOL SYSTEM PREVENT CRIME? Newark. 1856. 20 pages.

THE TEACHER. Moral Influences employed in the Instruction and Government of the Young. A new and revised edition. By Jacob Abbott. New York: Harper & Brothers. 1856. 353 pages.

DEMANDS OF THE AGE ON COLLEGES. Speech delivered by Hon. Horace Mann, President of Antioch College, before the Christian Convention, October 8, 1854. New York: Fowler & Wells. 1857.

THE MEANS AND ENDS OF UNIVERSAL EDUCATION. By Ira Mayhew. New York: A. L. Barnes & Co. 1857. 468 pages.

COLLEGE EDUCATION AND SELF EDUCATION.

A Lecture delivered in University College, London, introductory to the Session of the Faculty of Arts and Laws. By David Masson, Professor of Literaure, University College, London.

Scope of Education.—The business of education, in its widest sense, is co-extensive with a man's life: that it begins with the first moment of life, and ends with the last; and, that it goes on not alone in buildings like that in which we are now assembled, but in every combination of place, company, and circumstance, in which a man may voluntarily station himself, or into which he may be casually thrust.

I will here understand education as a process extending only over that preparatory period of life which, with young men, may be supposed to close about the twentieth or twenty-fifth year. And, I will also understand the word as referring chiefly to those means, whether organized or casual, by which, during that period of life, knowledge is acquired and accumulated.

The School of the Family.—The first school in which a man is bound to learn, and in which every man does, in spite of himself, learn more or less, is the school of his own ancestry, parentage, and kindred. There is no man, however strong his character, and however migratory his life, in whose mature manner of thought there are not traces of impressions produced on him by the family faces amid which he first opened his eyes, the family joys or griefs with which his childhood laughed or sobbed, the family stories and traditions to which his childhood listened. Happy they to whom this has been a kindly school; the homes of whose infancy have been homes of peace, order, and courtesy; over whose early years just fatherly authority and careful motherly gentleness have watched; in whose experience there has been no contradiction between the sense of right and the ties of blood; and who can look back upon progenitors, remembered for probity, courage, and good citizenship, and round among living kinsmen well placed and well respected in the world. This is not the common notion of pedigree. That man were, indeed, little better than a liar who, counting high historic names among his ancestors, should pretend to be careless of the fact; but, the kind of pedigree of which we speak is to be found in the humblest lineage of the land; and, at this hour, over broad Britain, there are, as we all know, families neither rich nor noble, to have sprung from which, and to have been nursed on their unrecorded fireside legends, would, for the purposes of real outfit in life, be better than to have been born in a castle and had the blood of all the Plantagenets. And yet, on the other hand, even those,—and they are many,—to whom this school of family and kindred has been a hard school, may there, also, have received many a powerful and useful lesson. Men do learn very variously; and there is an education of revolt and reaction, as well as of acquiescence and imitation. The training received in the school of family and kindred may not have been a genial or promising one; it may not be from the past in his own lineage that one can derive any direct stimulus or inspiration; the home of the early education may have been one of penury, chill, and contention; a veritable picture of a household, with its household gods broken; and yet, even so, the culture may have been great and varied,—albeit, sometimes, a culture of strength at the expense of symmetry.

The School of Locality.—I have always felt disposed to attach a peculiar

reverence and a peculiar sense of value to that arrangement, institution, or whatever you choose to call it, common to most societies, which we in Great Britain designate by the term neighborhood or parish. That every man should be related, and should feel himself related, in a particular manner, to that tract of earth which he is taught to regard as his parish, the assigned local scene of his habitation and activity on this side the grave, seems to me a natural and beautiful arrangement, which our political system would do well to respect, use, and consecrate. The limits of this smallest and most natural of territorial divisions may be variously defined. You may figure a parish as a tract of earth containing and supporting two thousand inhabitants, the ideal of a rural parish; or, you may figure it as a tract of earth underlying the sound of a particular church-bell. That this smallest of territorial divisions should merge and fit into larger and still larger divisions,—the district, the county, and so on,—is also necessary and natural; but, that a man's closest relations ought to be with his own parish and neighborhood, that it is with the natural and social phenomena lying around him on this piece of earth that he is bound primarily to make himself acquainted, and that all the elementary requirements of his life ought to be provided for by apparatus there set up, seems to me sound doctrine. For a man not to be so locally related during at least a portion of his life,—for a man to be shifting about in his youth from place to place, not remaining long enough in any to root his affections among its objects and details,—seems to me a misfortune. In point of fact, however, few are in this predicament. Removal from one's native place is common enough, and is becoming more common; but, almost all,—including even those exceptional persons who, having been born at sea, are reputed to belong to the parish of Stepney,—are located, during some part of their lives, in some one district, with the whole aspect and circumstance of which they become familiar, and which they learn to regard as native ground. Now, it is important to remark that there is no district, no patch of the habitable earth, in which a man can be placed and bred, but there are within that spot the materials and inducements toward a very considerable natural education. Nay, more, there is, to all ordinary intents and purposes, no one district in the natural and artificial circumstance of which there is not a tolerable representation and epitome of all that is general and fundamental in nature and life everywhere. Take Great Britain itself. Every British parish has its mineralogy; every British parish has its geology; every British parish has its botany; every British parish has its zoölogy; every British parish has its rains, its storms, its streams, and, consequently, its meteorology and hydrology; every British parish has its wonders of nature and art, impressive on the local imagination, and, in some cases, actually exerting a physical influence over the local nerve; and, though these objects and wonders vary immensely, though in one parish geological circumstance may predominate, in another botanical, and in a third hydrological or architectural; though in one the local wonder may be a marsh, in another a rocky cavern, and in a third an old fort or a bit of Roman wall; yet, in each there is a sufficient touch of what is generic in all. Over every British parish, at least when night comes, there hangs,—splendid image of our identity at the highest,—the same nocturnal glory, a sapphire concave of nearly the same stars. Descend to the life and living circumstance of the community, and it is still the same. There is no British parish in which all the essential processes, passions, and social ongoings of British humanity, from the chaffering of the market-place up to madness and murderous revenge, are not proportionately illustrated and

epitomised. There is no British parish that has not its gossip, its humors, its customs, its oracular and remarkable individuals, its oddities and whimsicalities, all of which can be made objects of study. Finally, there is no British parish that has not its traditions, its legends, and histories, connecting the generation present upon it with the world of the antique. And, with some modification, it is the same, if, passing the limits of Britain, we extend our view to foreign lands and climes. The circumstance, physical, artificial, social and historical, of a district in Italy or in Spain, is largely different from the corresponding circumstance of a district in Britain; much more so the circumstance of a district in South America or Hindostan; and yet, generically, there is so much that is common, that, after all, a person educated in the midst of Italian or Spanish circumstance, has about the same stock of fundamental notions of things as an Englishman has, and that a Hindoo jest will pass current in Middlesex. Every man, then, learns a vast deal,—a large proportion of our surest knowledge is derived,—from this education which we all have, in spite of ourselves, in the school of native local circumstance. It appears to me that, in our educational theories, we do not sufficiently attend to this. It appears to me that, among all our schemes of educational reform, perhaps the most desirable would be one for the organization and systematic development of this education of local circumstance, which is, at any rate, everywhere going on. This, I conceive, is the true theory of the "teaching of common things." Every child born in a parish and resident in it, ought to have, as his intellectual outfit in life, a tolerably complete acquaintance with the concrete facts of nature and life presented by that parish; and, in every parish, there ought to be a systematic means for accomplishing this object. Every child ought to carry with him into life, as a little encyclopædia, a stock of facts and pictures collected from the scene of his earliest habitations and associations; ought to be familiar with that miscellany of natural and artificial circumstance which first solicited his observation in the locality where he was brought up; from its minerals, and wild plants, and birds, and molluscs, up to its manufactures, its economics, its privileges and by-laws, and its local mythology or legends. A reformed system of parochial education ought to take this in charge, and to secure to the young some instruction in local natural history, local antiquities, local manufactures and economics, and local institutions and customs. Meanwhile, in the absence of any systematic means of accomplishing the object, we see that everywhere healthy boys do, by their own locomotion and inquisitiveness, contrive to acquire a stock of concrete local fact and imagery. We see them roaming over the circle of their neighborhoods, singly and in bands, ascending hills, climbing trees and precipices, peeping into foundries, workshops, and police offices, peering, in short, into every thing open or forbidden to them, and, in the most literal sense of the phrase, pursuing knowledge under difficulties. And, here, accordingly, in addition to constitutional difference and the difference of family schooling, is another source of the intellectual diversity we find among grown-up men. The education of local circumstance, as we have said, is by no means necessarily a narrow education; all that is general and essential everywhere, whether as respects the main facts of nature or the habits and laws of the human mind, is repeated in miniature in every spot. Kant never slept out of Königsberg; and Socrates never wished to go beyond the walls of Athens. Yet, on the other hand, difference of local educating circumstance is one of the causes of difference of intellectual taste and style in mature life. No two districts or parishes are precisely alike in their suggestions and

intellectual inducements. Some localities, as we have said, allure to geology, others to botany, others to fondness for landscape and color, others to mechanics and engineering, others to archæology and historical lore. Of those supposed three hundred youths, for example,—even omitting such of them as had been born and brought up abroad, amid scenes, and a vegetation, and costumes, and customs, aye, and under constellations different from our own,—hardly any two of the British-born would be found trading intellectually, so to speak, on the same stock of recollected facts and images. Some might have been born on the sea-coast, and the images most familiar to their memories would be those of rocks, and shingle, and a breaking surf, and brown fishing boats, and gulls dipping in the waves. and heavy clouds gathering for a storm.

> "I see a wretched isle, that ghost-like stands,
> Wrapt in its mist-shroud in the wintry main;
> And now a cheerless gleam of red-ploughed lands,
> O'er which a crow flies heavy in the rain."

Others might have been born and bred in sweet pastoral districts, and the images most kindly to their fancy would be those of still green valleys, and little streams flowing through them, and flocks, led by tinkling sheep-bells, cropping the uplands. Others might be natives of rich English wheat flats; others of barren tracts of hill and torrent. Some might have been born in provincial towns, where the kinds of circumstance peculiar to street-life would preponderate over the purely agricultural or rural; others might be denizens of the great metropolis itself, with its endless extent of shops, warehouses, wharves, churches, and chimneys. In large towns, and, above all, in London, it is needless to say, the fact to be noted is the infinite preponderance of artificial and social circumstance over that of natural landscape, and its infinitely close intertexture. The spontaneous education there, accordingly, is chiefly in what is socially various, curious, highly developed, comic, and characteristic. So strong, however, is the instinct of local attachment, that natives of London do contract an affection for their own parishes and neighborhoods, and an acquaintance with their details and humors, over and above their general regard for those objects which claim the common worship of all. In short, however we turn the matter over, we still find that a large proportion of the most substantial education of every one consists of this unconscious and inevitable education of local circumstance; and that, in fact, much of the original capital on which we all trade intellectually during life is that mass of miscellaneous fact and imagery which our senses have taken in busily and imperceptibly amid the scenes of their first exercise. In the lives of most men who have become eminent, whether in speculative science or in imaginative literature, a tinge of characteristic local color may be traced to the last. Adam Smith meditated his "Wealth of Nations" on the sands of a strip of Fifeshire sea-coast, and drew the instances which suggested the doctrines of that work to his own mind, and by which he expounded them to others, from the petty circumstance of a small fishing and weaving community close by. And, in Shakspeare himself, widely as his imagination ranged, it will be found that, in his descriptions of natural scenery at least, large use is made of the native circumstance of his woody Warwickshire, with its elms, its willows, its crow-flowers, daisies, and long-purples. However migratory a man has been, and however thickly, by his migrations, he may have covered the tablets of his memory with successive coatings of imagery, there are times when, as he shuts his eyes, all these seem washed away, and the original photographs of his early

years,—the hill, the moor, the village spire, the very turn of the road where he met the solitary horseman,—start out fresh as ever. Nay, more, it will be found, (and this is a fact of which Hartley and his laws of the association of ideas have never made any thing to the purpose,) that perpetually, underneath our formal processes of thinking, apparently independent of these processes, and yet somehow playing into them and qualifying them, there is passing through our minds a series of such unbidden reappearing photographs, a flow of such recollected imagery.

The School of Travel, Books and Friendship.—Under the head of the education of travel I include, as you may guess, all that comes of migration or change of residence; and my remarks under the former head will have enabled you to see that all this, important and varied as it may seem, consists simply in the extension of the field of observed fact and circumstance. All the celebrated effects of travel, purely as such, in enlarging the mind, breaking down prejudice, and what not, will be found to resolve themselves into this. If I pass now to the education of *books*, here also I find that the same phrase,—extension of the field of circumstance,—answers to a good deal of what this education accomplishes. Books are travel, so to speak, reversed; they bring supplies of otherwise inaccessible fact and imagery to the feet of the reader. Books, too, have this advantage over travel, that they convey information from remote times as well as from distant places. "If the invention of the ship," says Bacon, "was thought so noble, which carrieth riches and commodities from place to place, and consociateth the most remote regions in participation of their fruits, how much more are letters to be magnified, which, as ships, pass the vast seas of time, and make ages so distant to participate of the wisdom, illuminations, and inventions, the one of the other!" In these words, however, there is a suggestion that the education of books consists not alone in the mere extension of the field of the concrete. Books admit us to the accumulated past thought, as well as to the accumulated past fact and incident of the human race; and, though much of that thought,—as, for example, what comes to us in poetry,—consists but of a new form of concrete, (the concrete of the fantastic or ideal,) yet a large proportion of it consists of something totally different,—abstract or generalized science. It is in the school of books, more particularly, that that great step in education takes place,—the translation of the concrete into the abstract, the organization of mere fact and imagery into science. It is in conversation with books, more particularly, that one first sees unfolded, one by one, that splendid roll of the so-called sciences,—mathematics, astronomy, mechanics, chemistry, physiology, moral science, and politics, with all their attached sciences and subdivisions,—in which the aggregate thought of the human race on all subjects has been systematized; and that one first sees all knowledge laid out into certain great orders of ideas, any one of which will furnish occupation for a life. This great function, we say, peculiarly belongs to books. And what shall we say of the education of *friendship*? In what does this consist, and what does it peculiarly achieve? It consists, evidently, in all that can result, in the way of culture, from a closer relation than ordinary with certain selected individuals out of the throng through which one passes in the course of one's life. It is given to every one to form such close sentimental relations with perhaps six or seven individuals in the course of the early period of life; and these relationships,—far easier at this time of life than afterward,—are among the most powerful educating influences to which youth can be subjected. Friendship educates

mainly in two ways. In the first place, it educates by disposing and enabling one to make certain individual specimens of human character, and all that is connected with them, objects of more serious and minute study than is bestowed on men at large; and, in the second place, it takes a man out of his own personality, and doubles, triples, or quintuples his natural powers of insight, by compelling him to look at nature and life through the eyes of others, each of whom is, for the time being, another self. This second function of friendship, as an influence of intellectual culture, is by far the most important. There are, of course, various degrees of friendship, and various exercises of it in the same degree. There is friendship with equals, friendship with inferiors, and friendship with superiors. Of all forms of friendship in youth, by far the most effective, as a means of education, is that species of enthusiastic veneration which young men of loyal and well-conditioned minds are apt to contract for men of intellectual eminence within their own circles. The educating effect of such an attachment is prodigious; and happy the youth who forms one. We all know the advice given to young men to "think for themselves;" and there is sense and soundness in that advice; but, if I were to select what I account perhaps the most fortunate thing that can befall a young man during the early period of his life,—the most fortunate, too, in the end, for his intellectual independence,—it would be his being voluntarily subjected, for a time, to some powerful intellectual tyranny.

Book Education.—All our schools, all our colleges, all our libraries, almost every thing, in fact, that we recognize as an educational institution, with the partial exception of recently founded industrial schools and schools of practical art, are but a machinery for forwarding what may be called book education. Here, however, we must make a distinction. This extensive machinery of book education, which is set up amongst us, consists of two portions. One portion has for its object simply the effective teaching of the art of reading, with its usual adjuncts; another has for its object the guidance of the community in the use of that art when it has been acquired. Let us say that the first function is performed by the *schools* of the country, and that the second is reserved for the *colleges* of the country. This does not exactly accord with the fact, many of our so-called schools going far beyond the mere teaching of reading and writing, and undertaking part of the duty we have assigned to colleges; and, many of our so-called colleges, alas! having devolved upon them too much of the proper drudgery of schools.

Teach a man to read and write perfectly, and the rest, generally speaking, is in his own power. He is no longer a Helot; you have put him in possession of the franchise of books. With this possession, and with such access as he may have to libraries, he may be any thing he pleases and has faculty for. By reading in one direction, he may make himself a mathematician; by reading in another, he may become an adept in political economy; by reading in many he may become a variously cultured man. The accomplishment of perfect and easy reading in one's own language is, after all, the grand distinction between the educated and the non-educated. There are, indeed, degrees and differences among those above this line; but, between those above it and those below it there is a great gulf.

Self Education.—Once in possession of the franchise of books, a man, as we have said, has, generally speaking, the rest in his own power. There is no limit to what, with talent and perseverance, he may attain. He may become a

classical scholar and a linguist; or, he may grow eminent in speculation and the sciences. We have instances in abundance of such perseverance; and we have a name for those who so distinguish themselves. A person who, availing himself of the spontaneous means of education afforded by the other great schools, which we have enumerated,—the school of family, the school of native local circumstance, the school of travel, and the school of friendship, and having, also, somehow or other, been put in possession of the franchise of books,—conducts the rest of his book education himself, and conducts it so successfully as to become eminent, is called a self-educated man. Society often distinguishes between self-educated men and men who are college-bred,—that is, who have not only been taught to read and write in plain schools, but have had the benefit, for a certain period of their more advanced youth, of that higher pedagogic apparatus which directs and systematizes reading, and, to some extent, supersedes its use by imparting its results in an oral form. Now, the question has been raised, whether this higher pedagogic apparatus,—whether colleges, in fact,—are really of so much use as has been fancied; and, whether it would not be enough if, in these days, pedagogy were to stop at the first stage,—that of thoroughly teaching the mechanical art of reading,—and were then to turn the youth of a community so instructed loose upon the libraries and the miscellaneous teaching of life. This question is gaining ground, and not without apparent reason. Of the men of our own day who are eminent in station, influential in society, and distinguished in art, science, and letters, there are many who have not received what is generally called an academic education. I have only to glance round among those who are at present conspicuous in the various departments of British literature, and I find not a few who never studied in any university. And so, if I look back upon the past. The very king, the unapproachable monarch of our literature was a Warwickshire man, who had little Latin, less Greek, and, perhaps, no mathematics. True, the larger number of those examples of intellectual eminence attained without academic education, would be found to be not properly self-educated men, in the precise sense in which we are now using the term, but, to some extent, college-bred. Over Great Britain, and in England in particular, there are hundreds of public schools and private seminaries which do, though not to the same length as the great universities, perform the functions, as we have defined them, of colleges; and, it is in these that by far the largest proportion of young men, even of well-circumstanced families, are educated. Shakspeare was taught at the grammar-school of his native town, where the boys at this day wear square academic caps, whatever they did in his; so that the proper measure of Shakspeare's education, even scholastically, is that he was carried as far on by the pedagogy of his time as at least ninety-nine per cent. of his contemporaries. Perhaps the number of self-educated prodigies, in the present restricted sense of the term, is not so great as supposed. Still, there are examples of eminent men, self-educated even in this extreme sense of the term; that is, of men who, having received absolutely nothing from formal pedagogy but the plain faculty of reading and writing, if always that, have acquired all their subsequent book education privately for themselves.

Educational office of Colleges.—The question simply is whether, when a community has, by one set of educational apparatus called schools, put its young men in possession of that faculty of reading and taste for the same, which are the key to all the knowledge contained in books, it may then leave them to their own private perseverance, according to their inclinations and opportunities;

or, whether finer results may not be attained by handing them over, at this point, to another and a higher kind of educational apparatus, called colleges, which will take charge of them a few years longer, assist them in their first inroads upon the vast mass of thought and knowledge accumulated in books, and, in part, supersede and supplement that method of acquiring knowledge by oral instruction.

In the first place, then, colleges fulfill this important function, that they guarantee to society a certain amount of competency in certain professions, in which previously guaranteed competency is necessary. The professions most ostensibly in this predicament are those of law, theology, and medicine; but, there are numberless other professions for the efficiency and respectability of which a certain amount of attested general acquirement, as well as of special professional training, in those who engage in them, is absolutely requisite. This function of insuring society against the intrusion of quacks and ignorant pretenders into important professions, is performed, as well as it admits of being performed, by colleges. Before a man can legally practice medicine, for example, it is required that he shall have attended courses of lectures, not only in what appertains to medical science but also in those general subjects which enter into a liberal education. And so, in various ways, and under various forms of regulation, with other professions.

It is not only with a view to professional qualification that persons are the better for being detained, whether they will or not, in places where knowledge is systematically administered. Indolence, love of amusement, preference for the pleasant, the trivial, and the immediate, over what is important, substantial and lasting, are besetting sins even in manhood, but in youth they are especially natural. If a body of young men, fresh from school, were turned loose upon the huge library of printed literature, to find their way into it and through it as they liked, many of them, doubtless, would prove insatiable readers; but, it is questionable whether many of them, of their own accord, would choose the right directions, or would pursue their reading beyond that point where toil and patience began to be requisite. But, what is clearly wanted is a kind of intellectual generalship, if we may so speak, that shall muster youth in front of the masses of literature which have to be pierced through and conquered; drill them; infuse a bold spirit into them; point out to them the proper points of attack, the redoubts where glory is to be won; and, while leaving them as much scope as possible for individual energy and inclination, lead them on, according to a plan, in regular order and column. This duty is undertaken by colleges. There young men are assembled in classes, the business of which has been arranged, however imperfectly, according to an idea of the best manner in which knowledge may be partitioned. They are obliged to be present so many hours a day in the selected classes, and there to hear lectures on various subjects deliberately read to them, whether they will or not; and thus, as well as by the discipline of examinations and the like, certain orders of ideas as well as certain intellectual tendencies are worked into them which they could not otherwise have acquired, and which place them at an advantage all the rest of their lives. That I have not exaggerated this use of colleges I believe observation will prove. I believe it will be found that many of our first speculative and scientific minds have derived the special tendencies which have made their lives famous from impulses communicated in colleges. I think, also, it will be found that strictly self-educated men,—of course I except the higher and more illustrious

instances,—do not, as a body, exhibit the same tenacity and perseverance in pushing knowledge to its farthest limits as academic men of equal power. Their disposition, in most instances, is to be content with what I will call proximate knowledge,—that which lies about them and can be turned to immediate account. It is in current politics, in general literature, and in popular matter of thought, that they move and have their being; upon the laborious tracks of abstract science, or difficult and extreme speculation, they do not so often enter. Or if, occasionally, we do see a self-taught geologist, a self-taught botanist, or a self-taught mathematician, then, not unfrequently, there is an egotistic exultation over the labor gone through, and an exaggerated estimation of the particular science overtaken in its relations to the whole field of knowledge. There is too much, so to speak, of the spirit of the private soldier, whose idea of the field is but the recollection of his own movements. There are, I repeat, examples of self-educated men of so high an order as to be free from these faults. Still, I believe what I have said will be found, in the main, correct. Nay, abroad in society generally there is, I believe, too much of that spirit of contempt for the high, the profound, and the elaborate, in the way of speculation, which the worldly success of half taught men of good natural abilities is calculated to foster.

Even supposing that men could map out the field of knowledge for themselves, determine at a glance into what great orders of ideas the past thought of the human race could be best distributed for the purposes of study, and spontaneously go to work upon these in the right spirit, still, in the detailed prosecution of any study by means of books, assistance would be necessary. Accordingly, one use of colleges is that they direct and systematize reading. The art of recommending good books, and of leading on from one book to another, is one of the most useful qualifications of a teacher, and it may be carried to extraordinary perfection. Perhaps, indeed, we do not sufficiently attend to this function of colleges; perhaps we do not sufficiently attend to the fact that, since colleges were first instituted, their place in the general system of education has been greatly changed. When colleges were first instituted, books were scarce, and difficult of access; men were then their own encyclopædias; and, every Thomas Aquinas, Duns Scotus, or other ornament of a university, was bound to be a walking incarnation of the *totum scibile*. Hence, a course of lectures in those days was expected to be,—whatever might be its other merits,—a digest of all accessible information on the subject treated. Now, however, that there exist, on all subjects, books which it is impossible for even the best living thinker wholly to supersede, such lectures of a mere digest and detail are out of place; and, the business of teachers is rather to direct the reading of the pupils, and to reserve their original disquisitions for those points where they can hope to modify and extend what has been previously advanced.

Quite as much now as in those remote times when colleges were first set up in Europe they afford to youth that highest of all educational privileges, the chance of coming into personal contact with men either of original speculative power in their several departments, or of unusual fervor and enthusiasm, kindling into zeal all that come near them, and imparting life and fire to all that they touch. I have spoken of the wonderful efficacy of this influence casually encountered in society; but, it is the very nature of colleges to concentrate it and make it accessible.

Finally, I believe there is something in the oral method of conveying knowledge,

whether after the tutorial or after the professorial fashion, but, perhaps, most effective in the latter, which fits it to perform certain offices of instruction far better than they could be performed by private communion with books. I will not enlarge on this topic. I will only say, that it appears to me that the forms and circumstantials of oral teaching are such that any thing in the shape of a general doctrine or principle is far more expeditiously and impressively inculcated, in this mode, through the ear, than it can usually be taken in through the eye; and that, consequently, any science, such as political economy, the proper teaching of which consists in the slow infiltration into the minds of the pupils of a series of such general doctrines, one by one, as well as those parts of all sciences which consist of massive single propositions, can be best taught by lectures and examinations. Curiously enough, this is precisely that function of colleges which, after the revolution in our educational system, caused by the increase of books, would still, at any rate, be reserved for them.

[The views of the efficiency of oral or professorial teaching, so felicitously expressed by Prof. Masson in the above extracts, are held by Prof. Vaughan, in his pamphlet entitled "*Oxford Reform and Oxford Professors.*"]

The type is a poor substitute for the human voice. It has no means of arousing, moderating, and adjusting the attention. It has no emphasis except italics, and this meagre notation can not finely graduate itself to the needs of the occasion. It can not in this way mark the heed which should be specially and chiefly given to peculiar passages and words. It has no variety of manner and intonation, to show, by their changes, how the words are to be accepted, or what comparative importance is to be attached to them. It has no natural music to take the ear, like the human voice; it carries with it no human eye to range, and to rivet the student, when on the verge of truancy, and to command his intellectual activity by an appeal to the common courtesies of life. Half the symbolism of a living language is thus lost when it is committed to paper; and, that symbolism is the very means by which the forces of the hearer's mind can be best economized, or most pleasantly excited. The lecture, on the other hand, as delivered, possesses all these instruments to win, and hold, and harmonize attention; and, above all, it imports into the whole teaching a human character, which the printed book can never supply. The Professor is the science or subject vitalized and humanized in the student's presence. He sees him kindle into his subject; he sees reflected and exhibited in him, his manner, and his earnestness, the general power of the science to engage, delight, and absorb a human intelligence. His natural sympathy and admiration attract or impel his tastes, and feelings, and wishes, for the moment, into the same current of feeling; and, his mind is naturally, and rapidly, and insensibly strung and attuned to the strain of truth which is offered to him.

One peculiarity and advantage, too, in this mode of communication, attends a comprehensive lecture, which is not shared by a book. All who hear it, must hear it at the same moment; it affects a large number of individuals at the same time; it, therefore, becomes straightway more or less a topic of conversation or conversational debate, in which the comparison and contribution of impressions tends to diffuse, and, in some degree, equalize, the benefit; especially in an academical city, where the dispersed audience quits the lecture-room to meet again in the halls and common-rooms of the university within a few hours.

XVIII. NOTICES OF BOOKS.

1.—*Knowledge is Power; a view of the productive forces of modern society.* By CHARLES KNIGHT. *Revised and edited with editions by* DAVID A. WELLS, A. M. Boston: Gould & Lincoln. 12 mo. pp. 503.

An entertaining and valuable exposition of the infinite mastery which organization and invention have given to men over the masses, the forces, and the life, of the unintelligent creation. Few books of so small size contain so many startling details and generalizations explicative of the force of mind, and of its actual victories over matter, in production and almost in creation.

2.—*The Rural Poetry of the English Language; illustrating the Seasons and Months of the Year, their Changes, Employments, Lessons, and Pleasures, Topically Paragraphical; with a complete Index.* By JOSEPH WILLIAM JENKS, M. A., lately Professor of Languages in the Urbana University, Ohio. Boston: John P. Jewett & Co. Cleveland, Ohio: Jewett, Proctor & Worthington. New York: Sheldon, Blakeman & Co. 1856. Royal 8vo. pp. 544.

This royal octavo volume, beautifully illustrated printed and bound, is a monument of well-directed labor on the part of Prof. Jenks to bring the chief rural poetry of the language together in an attractive form. As a prize or a gift for Christmas, or New Year, or Birth-day, it is worth a dozen of the volumes usually presented on such occasions. Although we have most of the poetry in other volumes in our library, we would gladly purchase this, to have ready access to the elaborately prepared and copious topical index at the close of the volume.

3.—*My Schools and Schoolmasters.* By HUGH MILLER. Boston: Gould & Lincoln. 1854. 12 mo. pp. 537.

This is the plainly told and intelligent story of Mr. Miller's own life. It is well known that he has risen by his own exertions—and the task is much more difficult in Great Britain than in America—from being merely a day-laborer at stone-cutting, to a recognized and high position as a man of science and a writer; and we have here his own detail of his aspirations and struggles, and the various agencies and helps by which his education and character have been achieved.

4.—*Recollections of a Life-Time, or Men and Things I have seen: in a series of Familiar Letters to a Friend.* By S. G. GOODRICH. 2 vols. New York: Miller, Orton & Mulligan. 1856.

We anticipated great pleasure in the perusal of a work of this description from the varied experience and ready pen of Peter Parley, and we have not been disappointed in the glance which we have been able to give through these well-filled volumes. We shall recur to them again for extracts.

5.—*Bacon Essays; with Annotations.* By RICHARD WHATELY, D. D., Abp. of Dublin. From the Second London Edition. New York: C. S. Francis. 1 vol. 556 pages.

This edition,—the text of Bacon and annotations of Whately,—is every way one of the most remarkable books in the language, and should be in every library, and be read by everybody.

[*We are obliged to postpone other Notices to our next issue, when we will try to clear our table of books received.*]

Yours truly,
C. Peirce